



Center for
Educator Compensation Reform

Annotated Bibliography of Research and Publications on Educator Compensation

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Center for Educator Compensation Reform

Babette Gutmann, Director

Phone: 888-202-1513 • E-Mail: cecr@westat.com

The Center for Educator Compensation Reform (CECR) was awarded to Westat—in partnership with Learning Point Associates, Synergy Enterprises Inc., Vanderbilt University, and the University of Wisconsin—by the U.S. Department of Education in October 2006.

The primary purpose of CECR is to support the Teacher Incentive Fund (TIF) grantees with their implementation efforts through the provision of ongoing technical assistance and the development and dissemination of timely resources. CECR also is charged with raising national awareness of alternative and effective strategies for educator compensation through this newsletter, a Web-based clearinghouse, and other outreach activities. We look forward to an exciting partnership with the TIF grantees as we embark together on blazing a new path for education reform.

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Introduction

The Center for Educator Compensation Reform devised this annotated bibliography to provide Teacher Incentive Fund Grantees and other interested stakeholders with a list of citations for articles, books, and documents all related to the broad topic of educator compensation reform. This resource is organized by category and then alphabetical by author's last name, which allows the user to identify a particular subtopic of interest along with a selection of publications related to that subtopic. The user should then be able to read through each reference and annotation to determine which articles may be of interest or most relevant to what it is the reader is interested in investigating. Additional citation information is also provided to allow the user to easily locate the appropriate publications and full text articles.

Each citation is categorized by the type of publication—and some fit into more than one of the following types:

- **Scientific Research.** This category includes research reports published since 1980 that offer quantitative or qualitative evidence to support conclusions and have been reviewed by independent scholars.
- **Rigorous Research.** This category is exclusively for scientific research reports that meet stringent criteria for quality.
- **National Reports.** This category identifies research reports that make use of data gathered on a national scale.
- **State or Regional Reports.** This category identifies research reports that make use of data gathered in a state or on a regional scale.
- **Research Reviews and Books.** This category includes reviews of research or policy, and books.
- **In the Spotlight.** This category distinguishes research, reviews, and books that warrant special recognition.
- **Policy.** This category indicates the publication has a policy focus.
- **Issue Paper.** This category includes relevant publications that are neither scientific nor rigorous and that might contain an author's opinion.

With the exception of publications that fall into the Rigorous Research category, this document includes annotations on materials published since 1980. In the upcoming months, this resource will be replaced by the Center for Educator Compensation Reform online library, which will contain greater numbers of relevant citations by subtopic as well as an electronic search feature.

Compensation

The New Economics of Teachers and Education

Author(s): Flyer, Frederick; Rosen, Sherwin

Source: Journal of Labor Economics v15 n1 pt2 pS104–39 1997

Publication Type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study investigated the teacher labor market from both a demand and supply perspective. The authors used data from the NCES Digest of Education Statistics, the Schools and Staffing Survey, the National Longitudinal Study of Youth, and the Current Population Survey. Decreases in the number of students per teacher have been a major factor in the rise in education costs since 1960. Rising female labor market participation contributed to the substitution of public sector time inputs (e.g., more teachers, aides) for household time inputs (e.g., stay-at-home moms), and so accounted for 22 percent of the increase in teacher-student ratios. On the supply side, the authors found that when workplace experience and education are controlled for, teacher salaries declined somewhat relative to the wages of other college graduates. However, teachers who return to work after taking time off do not face wage penalties for the interruption as great as those faced by women who take time off in other careers, which helps to attract many women despite the declining teacher salaries.

Teacher Salaries and State Priorities for Education Quality: A Vital Link

Author(s): Gaines, Gale F.

Source: Southern Regional Education Board (Educational Benchmarks 2000 Series)

Publication Type: State or Regional Reports, In the Spotlight

Full text: <http://www.sreb.org/main/Benchmarks2000/TeacherSalaries.pdf>

Abstract: This report reviews the pay structures for teachers to illustrate how salary policies support (or do not support) state priorities for education. The major issues addressed in this report are (1) goals that Southern Regional Education Board states have set for teacher salaries, (2) lessons that states have learned about linking teacher salaries to performance and accountability, (3) how competitive teacher salaries are, (4) the effects of supply and demand on teacher compensation, and (5) states' efforts to recruit and retain quality teachers. Three major challenges include teacher shortages in certain subjects, too few teacher-education graduates getting into teaching, and accountability programs that raise the stakes for getting a quality teacher in every classroom. Finally, the author suggests directions for state policymakers to improve teachers' salary policies that promote student achievement and quality teaching. State leaders should continue to support salary goals, take actions that encourage good teachers to remain in teaching, conduct systematic reviews of supply and demand and teacher compensation, develop a method to check competitiveness of teacher salaries to address specific needs in salary decisions, and develop a plan for tying salary decisions to student achievement and accountability.

Evaluating the Effect of Teacher Degree Level on Educational Performance

Author(s): Goldhaber, Dan D.; Brewer, Dominic J.

Source: Developments in School Finance, William J. Fowler (Ed.) p197–210 1996

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: <http://nces.ed.gov/pubs97/975351.pdf>

Abstract: This piece reports the impact of teacher characteristics on student achievement. Data from the National Educational Longitudinal Study of 1988 were used to estimate models using teacher, class, and school-level variables. Results suggest that school-level variables have little to no influence on student achievement. However, there appears to be some impact on student achievement once teacher-degree information is added to the model. Specifically, there is a significant relationship between teachers who are certified and have a bachelor's or a master's degree in mathematics and student achievement in mathematics. Additionally, those teachers who have a bachelor's degree in science have a positive impact on student achievement in science.

When Should We Reward Degrees for Teachers?

Author(s): Goldhaber, Dan D.; Brewer, Dominic J.

Source: Phi Delta Kappan v80 n2 p134–138 Fall 1998

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: Using data from the National Education Longitudinal Study of 1988, the authors investigate the relationships between teacher characteristics, such as years of experience and degree level, and student achievement. Results show that neither years of experience nor teacher certification have significant impact on student achievement. However, of all subjects, those teachers who have training in mathematics and science appear to have a small, but significant impact on student test scores.

What Different Benchmarks Suggest About How Financially Attractive it Is to Teach in Public Schools

Author(s): Goldhaber, Dan; Player, Daniel

Source: Journal of Education Finance v30 n3 p211–230 Winter 2005

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This article uses multiple national data sets on occupations and salaries to compare teaching salaries to those in other occupations. Generally inflation-adjusted average teaching salaries increased in the 1960s, fell during the '70s, increased in the '80s, and remained flat in the '90s. Starting teaching salaries remain lower than other occupations; however, differences have shrunk since the early '80s. When looking at differences in salaries between teaching and competing occupations, high-skill teachers and secondary teachers have more high-paying opportunities outside of teaching than low-skill or elementary teachers. The authors argue that,

because of these competing opportunities, districts using single-salary schedules will have trouble recruiting or will have to settle for lower skill levels for those teachers in high demand in the overall labor market. The authors recommend that districts explore different salary systems to address the labor-market reality that people with different skills have different opportunities for higher salaries outside of teaching.

Alternative Teacher Compensation

Author(s): Goorian, Brad

Source: ERIC Digest Number 142, ERIC Clearinghouse on Educational Policy and Management Fall 2000

Publication type: In the Spotlight

Full text: <http://eric.uoregon.edu/pdf/digests/digest142.pdf>

Abstract: This report examines various alternative methods of teacher compensation. The single-salary schedule, which pays individual teachers on the basis of their years of experience and educational units or degrees has been criticized for valuing seat time more than teaching skill. The four main types of alternative compensation systems are discussed: pay for performance, knowledge- and skills-based pay systems, school-based performance award programs, and compensation for certification with the National Board for Professional Teaching Standards. Cincinnati is the first big-city public school district to replace the traditional salary structures with compensation based on evaluations of teachers grouped into five career categories ranging from “apprentice” to “accomplished,” with specific goals and standards attached to each. Denver’s pilot program offers three different pay-for-performance plans. The performance is evaluated from standardized test scores, achievement on teacher-made assessments, and acquisition of new knowledge and skills. Douglas County, Colorado, used multifaceted, comprehensive compensation plans that combine pay-for-performance plans and knowledge- and skills-based plans. The author suggests many resources for guidance in teacher compensation, including the Consortium for Policy Research in Education’s Teacher Compensation Project; a Milken Family Foundation report; and publications by the American Federation of Teachers, the National Commission on Teaching and America’s Future, and Education Week.

Teachers, Schools, and Academic Achievement

Author(s): Hanushek, Eric A.; Kain, John F.; Rivkin, Steven G.

Source: NBER Working Paper No. 6691 August 1998

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study used data on cohorts of 5th and 6th grade students from 939 Texas schools to examine relationships between schools, teachers, and student achievement. The study found that variations among teachers account for a significant portion of variation in student achievement. The study concluded that teacher quality is an important determinant of student achievement. Though teacher quality remains largely unmeasured, the study did find that new teachers’ average student gains are significantly lower than those of more experienced teachers.

The study found no evidence that students of teachers with master's degrees made larger achievement gains than those of students of other teachers.

Teacher Sorting and the Plight of Urban Schools: A Descriptive Analysis

Author(s): Lankford, Hamilton; Loeb, Susanna; Wyckoff, James

Source: Educational Evaluation and Policy Analysis v24 n1 p37–62 Spring 2002

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This paper examines teacher sorting and variation by schools and districts in the average attributes of teachers in New York State using longitudinal data on all teachers over a 15-year period ending in 1999–2000. As proxies for school level teacher quality, the study measured the percent of teachers with no prior teaching experience; the percent of teachers with no more than a Bachelors degree; the percent of teachers not certified in any of their current teaching assignments; the percent of teachers certified in all of their current teaching assignments; the percent of teachers who failed the NTE General Knowledge Exam or the NYSTCE Liberal Arts and Science Exam on their first try; and the percent of teachers who attended competitive, less competitive, or least competitive schools. The study found that teachers sorted systematically across schools and districts, with most of the variation in teacher qualification occurring between schools within districts and between districts, not between regions of the state. The New York City region was the only region that stood out with substantially less qualified teachers than other regions. Students from low income families, low performing students, and minority students, particularly in urban areas, attended schools with less qualified teachers. Teacher attrition was higher in poor, urban schools, especially for teachers with higher qualifications. Salary structures did not appear to help reduce the uneven distribution of teachers.

How Teachers' Choices Affect What a Dollar Can Buy: Wages and Quality in K–12 Schooling

Author(s): Loeb, Susanna

Source: Education Finance Research Consortium n31 2000

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: <http://www.albany.edu/edfin/symp2000/LoebW3.pdf>

Abstract: This study examines the distribution of teachers and teacher salaries in New York State and nationally. A school-level, aggregate measure of teacher qualifications was developed using factor analysis of data on certification, college degree, competitiveness of college, NTE passage, and tenure. Ordinary least squares with fixed effects was used to examine relationships between quality measures and school, district and regional characteristics. Much of the variation in teacher qualifications across schools was found to be within districts, since salaries do not vary by school. Schools with higher achieving and higher socioeconomic students were found to have teachers with higher qualifications. Policy recommendations include targeted salary increases and targeted improvements in working conditions to attract teachers to low-performing schools and reduce disparities in teacher quality.

The Relationship Between Teacher Performance Evaluation Scores and Student Achievement: Evidence From Cincinnati

Author(s): Milanowski, Anthony

Source: Peabody Journal of Education, v79 n4 p33–53 2004

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: The author examines the relationship between teacher evaluation scores in the Cincinnati public school district, which has a rigorous, standards-based teacher evaluation system and a value-added measure of student achievement. The teacher assessment system was based on a set of teaching standards derived from the framework for teaching. Sixteen performance standards were grouped into four domains: planning and preparation, creating a learning environment, teaching for learning, and professionalism. Each standard has a set of behaviorally anchored rating scales described in four levels: unsatisfactory, basic, proficient, and distinguished. Teachers were evaluated based on six classroom observations and a portfolio. Student achievement was assessed from student test scores from the district and state for students in Grades 3–8 in reading, mathematics, and science. A two-level, hierarchical linear model was used to study the relationship between teacher evaluation scores and student achievement, controlling for extraneous variables of teacher and student characteristics. Small to moderate positive correlations were found for most grades in each subject tested. The results showed that scores from a rigorous teacher evaluation system can be related substantially to student achievement and provide criterion-related validity evidence for the use of performance-evaluation scores as the basis for a performance-based pay system for teachers.

Teacher Compensation and Teacher Teaming: Sketching the Terrain

Author(s): Muncey, D.; Conley, S.

Source: Journal of Personnel Evaluation in Education v12 n4 p363–385 January 1999

Publication type: In the Spotlight

Full text: URL not available

Abstract: This article examines the changes in a teacher compensation system that supports teachers working in groups through three interrelated aspects: the relationship of teaming to teachers' overall work, the investment to accomplish educational teaming, and the degree to which the team aims to increase employee self-management and self-governance. Drawing from the concepts of work teams in the general organization literature, the authors discuss two major forms of teacher teams: interdisciplinary and grade level. The authors provide examples of pay practices in schools that support teacher teaming. These teacher compensation options were conceptualized on a continuum. Compensation as a primary motivator for teachers in a teaming arrangement does not yet exist. There are also differences in how teachers and administrators view compensation in the context of teaming. The authors also suggest ways to increase the likelihood of maintaining teacher teaming practice.

History of Teacher Pay and Incentive Reforms

Author(s): Protsik, Jean

Source: Journal of School Leadership v6 n3 p265–289 Spring 1996

Publication type: In the Spotlight

Full text: URL not available

Abstract: This paper discusses three major changes in the method of teacher pay since the 1800s from an initial rural tradition of paying teachers room and board to a grade-based salary schedule and finally to the single-salary schedule. The two new waves of compensation-reform attempts also are discussed: the 1980s individual merit-pay and career-ladder programs, and the 1990s group-incentive pay plans based on student performance. The author suggests that the structure of teacher compensation has changed through the years to meet changing social and educational needs. For present educational needs, the single-salary schedule as the dominant model of teacher compensation may be ineffective in most circumstances in encouraging continued teacher professional development. The group-based performance pay plans offer one way to focus teacher efforts on producing student learning. While teacher compensation is only one of the many aspects that affects school performance, options do exist that can help improve schools to meet tomorrow's needs.

Compensation and Teacher Attitudes, Motivation, and Job Satisfaction

Teachers' Attitudes Toward Merit Pay: Examining Conventional Wisdom

Author(s): Ballou, Dale; Podgursky, Michael

Source: Industrial & Labor Relations Review v47 n1 p50–61 Fall 1993

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: The authors examined data from the 1987–88 Schools and Staffing Survey to investigate teachers' attitudes toward a merit-pay system. The conventional belief is that teachers oppose a merit-pay system because they doubt the fairness of performance evaluations, they expect dissension and demoralization as a result of competition, and they see base payment as too low. However, based on data from 56,000 public and 11,500 private school teachers, a majority of teachers in the survey favor a merit-pay system. Teachers in districts that use merit pay do not seem demoralized. The level of pay in the district appears to have no effect on teachers' attitudes toward merit pay. In addition, teachers in the private sector are far more favorably inclined toward merit pay than are public school teachers.

The Distribution of Salary Increments and its Effect on Teacher Retention

Author(s): Jacobson, Stephen L.

Source: Educational Administration Quarterly v24 n2 p178–99 May 1988

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study used data on 57 school districts in two regions of New York State to examine the effect of internal salary distribution on teacher retention. Districts with high salaries at the midcareer level relative to surrounding districts had better retention in the suburban region, while districts with high relative salaries at the senior level had the highest retention in the rural region. Retention of female teachers was more strongly linked to relative salaries than was retention of male teachers. The author suggests that the popular practice of backloading salary increments to the advantage of senior teachers is not the most efficient allocation of resources to promote teacher retention. Since teachers are most likely to leave teaching within the first five to seven years, districts with the most attractive midcareer salaries target economic incentives to teachers at the point in their career when they are most likely to migrate or leave, which may account for improved retention rates.

School-Based Performance Award Programs, Teacher Motivation, and School Performance: Findings from a Study of Three Programs

Author(s): Kelley, Carolyn; Heneman, Herbert, III; Milanowski, Anthony T.

Source: Philadelphia: University of Pennsylvania, Graduate School of Education, Consortium for Policy Research in Education April 2000

Publication type: Rigorous Research, State or Regional Reports, Policy

Full text: <http://www.cpre.org/Publications/rr44.pdf>

Abstract: This study looks at school-based performance award programs and their impact on student performance. The implementation of these programs is reported to have a positive impact on student performance. Using survey data, Kelley describes the benefits of increased expectations, and how individual and group motivation impacts the teacher. The article goes on to examine principal reactions to expectancy changes.

The Motivational Effects of School-Based Performance Awards

Author(s): Kelley, Carolyn; Odden, Allan; Milanowski, Anthony; Heneman, Herbert, III

Source: Consortium for Policy Research in Education (Policy Brief) Winter 2000

Publication type: Scientific Research, State or Regional Reports

Full text: <http://www.cpre.org/Publications/rb29.pdf>

Abstract: From 1995–98, the Consortium for Policy Research in Education teacher-compensation researchers conducted interviews and survey questionnaires of teachers and principals in three sites to measure the motivational effects of school-based performance award (SBPA) programs. The Charlotte-Mecklenburg’s benchmark goals program and Kentucky’s accountability program provided salary bonuses to all teachers in the school who met the educational objectives. Maryland’s school performance program provided monetary awards to schools that showed progress toward state standards. Goal clarity was related positively to school performance. Providing rewards for too many goals could diffuse effort and responsibility so teachers would lose focus on how to achieve the goals. The most important motivation to determine whether schools succeeded in meeting the SBPA performance goals was whether teachers thought they could produce the desired improvements. On average, teachers neither agreed nor disagreed that the SBPA programs were fair; teachers who perceived the programs as fair are likely to believe that their efforts could improve student performance. SBPA programs work to focus teacher and system attention on key educational goals. The authors suggest that the motivational effects of SBPA programs could be strengthened by a better communication of goals, enhanced teacher expectancy, enhanced teacher perceptions that earned awards will be funded, and experimentation with larger award amounts.

Teachers’ Perceptions of Their Jobs: A Multilevel Analysis of the Teacher Follow-up Survey for 1994–95

Author(s): Liu, Xiaofeng Steven; Meyer, J. Patrick

Source: Teachers College Record v107 n5 p985–1003 Spring 2005

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: This study uses a national representative survey (i.e., Schools and Staffing Survey of 1993 and associated follow-up) to examine teacher satisfaction with student discipline, school climate, professional support, compensation, and work conditions. The study then examines the relationship between teacher satisfaction and whether teachers worked in a public or private

school, whether they had left their school, and whether they were a minority. Generally teachers were most satisfied with professional support and school climate and least satisfied with compensation and discipline. Private school teachers were more satisfied in every area except compensation. Those who left their schools were less satisfied with every area except compensation. Minority teachers were less satisfied in every area measured. The researchers suggest these findings support policies to improve discipline instead of increased compensation.

Teacher Compensation and Teacher Teaming: Sketching the Terrain

Author(s): Muncey, D.; Conley, S.

Source: Journal of Personnel Evaluation in Education v12 n4 p363–385 January 1999

Publication type: In the Spotlight

Full text: URL not available

Abstract: This article examines the changes in a teacher compensation system that supports teachers working in groups through three interrelated aspects: the relationship of teaming to teachers' overall work, the investment to accomplish educational teaming, and the degree to which the team aims to increase employee self-management and self-governance. Drawing from the concepts of work teams in the general organization literature, the authors discuss two major forms of teacher teams: interdisciplinary and grade level. The authors provide examples of pay practices in schools that support teacher teaming. These teacher compensation options were conceptualized on a continuum. Compensation as a primary motivator for teachers in a teaming arrangement does not yet exist. There are also differences in how teachers and administrators view compensation in the context of teaming. The authors also suggest ways to increase the likelihood of maintaining teacher teaming practice.

Perceived Workplace Conditions and First-Year Teachers' Morale, Career Choice Commitment, and Planned Retention: A Secondary Analysis

Author(s): Weiss, Eileen Mary

Source: Teaching and Teacher Education v15 p861–79 1999

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: This study used data from the 1987–88 and 1993–94 Schools and Staffing Survey on more than 5,000 first year teachers to examine the effects of perceived workplace conditions and other factors on morale and intentions to remain in teaching. Perceived school leadership, school culture, teacher autonomy, and discretion were the main factors predicting teacher morale and intentions to remain in teaching. The author argues for the importance of supportive principals and opportunities for teacher involvement in decision-making in particular. Salary was not a major influence on morale, but did predict intentions to leave in the 1987–88 sample. Student discipline and behavioral problems were linked with low teacher morale, though when teachers were able to influence discipline policy, morale and commitment were better. Middle school teachers had the lowest morale, while elementary school teachers were most likely to report intentions to remain in teaching.

Compensation and Teacher Supply

Eight Questions on Teacher Recruitment and Retention: What Does the Research Say? A Summary of the Findings

Author(s): Allen, Michael

Source: Education Commission of the States Fall 2005

Publication type: In the Spotlight

Full text: <http://www.ecs.org/clearinghouse/64/58/6458.pdf>

Abstract: This report reviews the body of research addressing teacher recruitment and retention to ascertain what evidence the research truly provides and what its implications are for policy. The report is based on a review of 91 studies selected, using rigorous criteria, from more than 300 originally considered. These studies were used to answer eight questions about teacher recruitment and retention of particular importance to policy and to education leaders. This report is the second in a series of reports on teaching quality. The first report on teacher preparation is available at www.ecs.org/tpreport/. The third, focusing on research around teacher licensure and certification, was released in October 2005.

Do Public Schools Hire the Best Applicants?

Author(s): Ballou, Dale

Source: Quarterly Journal of Economics v111 n1 p97–113 February 1996

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: This study examines the determinants of district hiring decisions using data from the 1976–1991 Survey of Recent College Graduates. Relying on regression models, the authors found that college students were more likely to pursue a career in teaching if relative salaries increased and job prospects were favorable. Women and students with high GPA's were more likely to apply for teaching jobs than other students. Among those who did apply, students from more selective colleges—measured by Barron's 1991 rankings—were no more likely to be offered and accept full-time teaching positions than other students. Students with high GPA's and with an education major fared better in the job market than other students, but students with training in mathematics and science did not. The author offers the findings as evidence of district officials' indifference toward college quality and training in shortage areas. Ballou suggests that problems with teacher quality are related to demand rather than supply, and that policy prescriptions must be adjusted accordingly.

Teacher Recruitment and Retention in Public and Private Schools

Author(s): Ballou, Dale; Podgursky, Michael

Source: Journal of Policy Analysis and Management v17 n3 p393–417 1998

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study examines how well private and public schools are able to meet their recruitment and retention objectives, and whether private schools benefit in these efforts from market competition. Data from the 1990-91 Schools and Staffing Survey was used to estimate the association between school type and principal ratings in several logit models. New teachers in both public and private schools were given similar performance ratings by their principals, but experienced teachers in private schools were rated significantly higher than experienced teachers in public schools after controlling for school and community characteristics and salary levels. In addition, experienced teachers in private schools received higher ratings relative to beginning teachers in private schools than did experienced teachers in public schools relative to beginning teachers in public schools. The authors argue that this implies private schools do a better job of retaining better teachers and developing the talent of their staff. The authors speculate that this is due to an advantage private schools have in recruiting, retaining and developing high quality staff including the following: greater pay flexibility; greater ability to recruit noncertified teachers; better staff development through in-service training and mentoring; and greater authority to dismiss low performing teachers.

Recruiting Smarter Teachers

Author(s): Ballou, Dale; Podgursky, Michael

Source: Journal of Human Resources v30 n2 p326–38 1995

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: In this study, the authors used an analytic model of short term flows in and out of teaching, calibrated by behavioral parameters from the NLS-72 survey, to simulate the expected effect of a 20 percent across the board increase in teacher wages on the percentage of teachers from each of four SAT percentile groupings under several assumptions regarding the behavior of districts and teachers. According to their estimates, a 20 percent wage increase would raise the share of teachers with high SAT scores (86th–100th percentile) from 5.1 to 7.6 percent in their basic model, to 9.0 percent under the assumption that districts place a great deal of weight on SAT scores, and to 5.4 percent under the assumption that districts place very little weight on SAT scores. Targeted raises to only high-ability teachers would be most efficient, raising the share of high SAT teachers to 9.2 percent. The authors argue that these changes are relatively slight, and attribute this to the fact that raising wages across the board will slow the rate of exit of existing teachers, regardless of ability, from the profession. With increases in salary, the supply of teachers grows, while the number of vacancies declines; this in turn reduces the probability that high-ability candidates will invest in teacher certification, given the poor job prospects. These perverse effects will offset the positive effect of enlarging the applicant pool.

Why Bright College Students Won't Teach

Author(s): Berry, Barnett

Source: Urban Review v18 n4 p269–80 1986

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study used case studies and interviews with 80 college students not majoring in education to investigate the career expectations of young adults and ways to attract them to public school teaching. The author found that economic incentives were not a major influence on students' opinions of the teaching profession, but rather that most of the sample had formed their ideas about teaching from their own experiences as public school students. Female students and students from rural areas and lower socioeconomic backgrounds were more likely to express an interest in teaching, while students from higher socioeconomic backgrounds tended to view teaching as a temporary pursuit before going to graduate school. State certification rules and extracurricular chores were a deterrence for students from higher socioeconomic backgrounds. Many students who had been designated as particularly academically able by their department felt that teaching would not allow them to pursue their own intellectual goals.

A Qualitative Critique of Teacher Labor Market Studies

Author(s): Berry, Barnett; Noblit, George W.; Hare, R. Dwight

Source: Urban Review v17, n2, p98–110 1985

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study used case studies of six universities and six school districts in the Southeast to analyze recruitment and retention decisions of teacher education programs, teachers, and school administrators. The authors found that neither universities nor school districts exerted much effort in recruiting teachers. School administrators pointed out qualities beyond academic excellence that they value in teachers and that influence hiring decisions, such as relating to children and parents, being involved in school extracurricular activities, and fitting into the community. Teachers reported that their mobility decisions were often related to family, with urban teachers bound to nuclear families, and rural teachers bound to extended family. Money and career opportunities were not major influences on teachers' career decisions, but poor working conditions in schools did play a large role in teacher satisfaction.

Analyzing the Determinants of the Matching Of Public School Teachers to Jobs: Estimating Compensating Differentials in Imperfect Labor Markets

Author(s): Boyd, Donald; Lankford, Hamilton; Loeb, Susanna; Wyckoff, James

Source: National Bureau of Economic Research, Working Paper No. 9878 Summer 2003

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: http://www-cpr.maxwell.syr.edu/efap/Jerry_Miner/Lankford.pdf

Abstract: This paper investigates the appropriate way to mathematically study how teacher and district choices affect the distribution of qualified teachers between schools, using data from New York. The authors find that distance from home is a very important factor in determining which jobs teachers take. Other job selection factors important to teachers are salary and the number of minority students in the school/district. The authors suggest districts prefer teachers with higher test scores that attended more selective colleges and then conclude by arguing that the proportion of minority students in a school may really be proxy for other factors, such as working conditions, that are not often measured.

Factors Which Deter Potential Science/Math Teachers from Teaching: Changes Necessary to Ameliorate Their Concerns

Author(s): Evans, Robert H.

Source: Journal of Research in Science Teaching v24 n1 pp77–85 1987

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study used survey data from 98 freshmen at a medium sized engineering university in the Midwest to examine the reasons why potential teachers decide not to pursue teaching careers. Students cited low salaries as the primary reason for not entering teaching. Students identified as “teaching-oriented” listed not wanting to do the things that teachers do every day and a lack of job security as the second and third most important discouraging factors, while students who were not “teaching-oriented” identified poor job availability and not wanting to do the things that teachers do everyday as second and third most important. Students perceived teaching to involve a great deal of monotonous tasks and they also reported that friends and relatives often discouraged them from entering the teaching profession.

Paying for Public Education: New Evidence on How and Why Money Matters

Author(s): Ferguson, Ronald F.

Source: Harvard Journal on Legislation v28 p465–498 1991

Publication type: Scientific Research, Rigorous Research, State or Regional Reports, In the Spotlight

Full text: URL not available

Abstract: This study utilized regression analyses and data from more than 800 Texas school districts to understand the determinants of student test scores, factors that influence which districts attract the most effective teachers, and how and why money matters. The study found that teacher basic literacy skills, teacher experience, and class size all predict student test scores. Further, the teacher supply to districts was related to teacher salary levels relative to other occupations in the district and the racial makeup and educational attainment of the district population. The study concluded that money does matter for student achievement when it is used to attract higher quality teachers and to avoid large classes.

The New Economics of Teachers and Education

Author(s): Flyer, Frederick; Rosen, Sherwin

Source: Journal of Labor Economics v15 n1 pt2 pS104–39 1997

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study investigates the teacher labor market from both a demand and supply perspective. The authors used data from the NCES Digest of Education Statistics, the Schools and Staffing Survey, the National Longitudinal Study of Youth, and the Current Population Survey. Decreases in the number of students per teacher have been a major factor in the rise in

education costs since 1960. Rising female labor market participation contributed to the substitution of public sector time inputs (e.g. more teachers, aides) for household time inputs (e.g. stay-at-home moms), and so accounted for 22 percent of the increase in teacher-student ratios. When the authors investigated supply, and controlled for workplace experience and education, teacher salaries declined somewhat relative to the wages of other college graduates. However, teachers who returned to work after taking time off did not face as great wage penalties for the interruption as those faced by women who took time off in other careers.

Teacher Salaries and State Priorities for Education Quality: A Vital Link

Author(s): Gaines, Gale F.

Source: Southern Regional Education Board (Educational Benchmarks 2000 Series)

Publication type: State or Regional Reports, In the Spotlight

Full text: <http://www.sreb.org/main/Benchmarks2000/TeacherSalaries.pdf>

Abstract: This report reviews the pay structures for teachers to illustrate how salary policies support (or do not support) state priorities for education. The major issues addressed in this report are (1) goals that Southern Regional Education Board states have set for teacher salaries, (2) lessons that states have learned about linking teacher salaries to performance and accountability, (3) how competitive teacher salaries are, (4) the effects of supply and demand on teacher compensation, and (5) states' efforts to recruit and retain quality teachers. Three major challenges include teacher shortages in certain subjects, too few teacher-education graduates getting into teaching, and accountability programs that raise the stakes for getting a quality teacher in every classroom. Finally, the author suggests directions for state policymakers to improve teachers' salary policies that promote student achievement and quality teaching. State leaders should continue to support salary goals, take actions that encourage good teachers to remain in teaching, conduct systematic reviews of supply and demand and teacher compensation, develop a method to check competitiveness of teacher salaries to address specific needs in salary decisions, and develop a plan for tying salary decisions to student achievement and accountability.

An Analysis of the Factors Affecting the Supply and Demand for Teacher Quality

Author(s): Galchus, Kenneth E.

Source: Journal of Economics and Finance v18 n2 p165–78 Summer 1994

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study used data on public schools in 75 Arkansas counties to investigate the supply and demand for teacher quality, as measured by the countywide teacher pass rate on a mandatory test of basic skills administered in 1985. The authors estimated county-level demand for teacher quality using educational level, median income, and race/ethnicity of the population, the school property tax rate, and spending on teacher salaries and other educational factors. They found that average teacher salaries had a significant negative effect on demand for teacher quality, and a significant positive effect on supply. The percentage of whites and college graduates in a county was positively associated with demand for teacher quality. Demand was price-inelastic, while supply was much more elastic. Higher student achievement and lower

population density were associated with greater teacher quality on the supply side, suggesting that counties most in need of quality teachers had the most difficulty attracting those teachers.

What Different Benchmarks Suggest About How Financially Attractive it Is to Teach in Public Schools

Author(s): Goldhaber, Dan; Player, Daniel

Source: Journal of Education Finance v30 n3 p211–230 Winter 2005

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This article uses multiple national data sets on occupations and salaries to compare teaching salaries to those in other occupations. Generally, inflation-adjusted average teaching salaries increased in the 1960s, fell during the '70s, increased in the '80s, and remained flat in the '90s. Starting teaching salaries remain lower than other occupations; however, differences have shrunk since the early '80s. When looking at differences in salaries between teaching and competing occupations, high-skill teachers and secondary teachers have more high-paying opportunities outside of teaching than low-skill or elementary teachers. The authors argue because of these competing opportunities, districts using single-salary schedules will have trouble recruiting or will have to settle for lower skill levels for those teachers in high demand in the overall labor market. The authors recommend districts explore different salary systems to address the labor-market reality that people with different skills have different opportunities for higher salaries outside of teaching.

How Does Money Affect Teachers' Career Choices? Evidence From NLS-72

Author(s): Han, You-Kyung; Rossmiller, Richard A.

Source: Journal of Education Finance v30 n1 p79–100 Summer 2004

Publication type: Scientific Research, National Reports, State or Regional Reports

Full text: URL not available

Abstract: This study uses data on people who completed teacher training as measured in the National Longitudinal Study of the High School Class of 1972 (NLS-72) to examine multiple questions around the relationship between salary and choosing to teach. The authors found that differences in salary between teaching and other careers were important to men and not important women in choosing to start teaching. Other variables that increased the probability of starting teaching were a mathematics or science major for men and a high grade point average for women. Once teaching, low salary was the main reason given by men while family responsibilities was the main reason given by women for leaving teaching. Other factors associated with teachers who remained teaching were higher education levels, having fewer children, being female, and teaching elementary grades. The author recommends that increased salaries should attract more new teachers and reduce turnover.

Who Chooses to Teach (and Why)?

Author(s): Hanushek, Eric A.; Pace, Richard R.

Source: Economics of Education Review v14 n2 p101–17 1995

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study investigates the characteristics of those who choose to enter teaching, as well as policy variables such as teacher salaries and certification requirements that influence prospective teachers' career decisions. Longitudinal data from the High School and Beyond survey tracks a cohort of 1325 individuals from 1980, when they were high school seniors, to 1986. The authors found that a majority of eventual teachers did not express aspirations toward teaching when they were in high school, while many high school seniors who did intend to pursue teaching ended up pursuing other careers. Though students who express interest in teaching as high schoolers are disproportionately low achieving, many weaker students drop out of the teaching track as they progress through college so that the group that actually graduates from teacher education programs is representative of the population as a whole in terms of academic achievement. State certification requirements, such as teacher exams and strict course requirements lowered the proportion of college students engaged in teacher preparation, and the effect was equivalent for whites and blacks. This study suggests salaries did not have a large or significant effect on students' choices to become teachers.

Compensation Policies and Teacher Decisions

Author(s): Stinebrickner, Todd R.

Source: International Economic Review v42 n3 p751–79 August 2001

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study examines the occupational decisions of individuals certified to teach using a dynamic, discrete choice, utility maximizing model. The study used data from a sample of 551 individuals who became certified to teach between 1975 and 1985 and participated in the National Longitudinal Survey of the High School Class of 1972. An analytic framework was used to model the effects of possible changes in teacher salary policy. One policy would provide pay raises of 20 percent to all teachers, while the other policy would use the same amount of money but would target raises to those with higher academic ability. The models suggested that the two policies would raise the overall supply of teachers by equal amounts, but the second policy would increase the proportion of teachers with high SAT scores.

The Impact of Teacher Turnover on Teacher Quality: Findings from Four States

Author(s): Theobald, Neil D.; Laine, S. W. M.

Source: School Finance and Teacher Quality: Exploring the Connections, Eye on Education 2003

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study uses four longitudinal case studies and interviews with eight additional teachers to understand the challenges associated with recruiting, inducting, and retaining high-quality teachers in urban areas. Field experiences and multicultural education in teacher preparation were identified as very important for preparing new teachers for their urban

experiences. The hiring processes were seen as bureaucratic and ineffective at informing new teachers about their schools and classes. Induction was seen as important to new teachers with those teachers in the sample who changed schools to work in a more collegial environment. While compensation was not a primary motivator for entering teaching, low pay did cause important challenges for teachers, particularly with housing and the need for supplemental income to make ends meet. Policy recommendations include strong supports around classroom management, reducing bureaucratic barriers to entering teaching, improving orientation to schools, induction that builds collegiality, and housing assistance.

Teacher Recruitment in a School Reform State: Factors That Influence Applicant Attraction to Teaching Vacancies

Author(s): Winter, Paul A.; Melloy, Samuel H.

Source: Educational Administration Quarterly v41 n2 p349–372 Spring 2005

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study uses a survey of teacher trainees and experienced teachers in Kentucky to investigate the relationship between school accountability ratings, signing bonuses, experience, and interest in a job. The researchers found that vacancies at lower rated schools were significantly less interesting to teachers even if they included a 10 percent signing bonuses. They also found experienced teachers were generally less interested in vacancies than inexperienced teachers. Policy recommendations include different recruitment strategies for new and experienced teachers and further exploration of nonmonetary inducements for teaching in low-rated schools.

Compensation and Teacher Retention

Eight Questions on Teacher Recruitment and Retention: What Does the Research Say? A Summary of the Findings

Author(s): Allen, Michael

Source: Education Commission of the States Fall 2005

Publication type: In the Spotlight

Full text: <http://www.ecs.org/clearinghouse/64/58/6458.pdf>

Abstract: This report reviews the body of research addressing teacher recruitment and retention to ascertain what evidence the research truly provides and what its implications are for policy. The report is based on a review of 91 studies selected, using rigorous criteria, from more than 300 originally considered. These studies were used to answer eight questions about teacher recruitment and retention of particular importance to policy and education leaders. This report is the second in a series of reports on teaching quality. The first report on teacher preparation is available at www.ecs.org/tpreport/. The third, focusing on research around teacher licensure and certification, was released in October 2005.

Profile of Utah Teachers Leaving the Teaching Profession

Author(s): Allred, Wallace E.; Smith, Ralph B.

Source: Rural Educator v5 n3 p2–5 1984

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study profiles characteristics of teachers in Utah who left their school during or immediately following the school year. Survey data were collected from 233 teachers from 30 rural districts and 834 teachers from 10 urban districts. Additional data came from district personnel files. The study found that teachers in rural districts were more likely to leave their districts than were teachers in the urban districts. Most teachers who left rural districts were elementary teachers in Grades 1–3, were inexperienced, and held only a bachelor's degree. Maternity was the most frequently cited reason for leaving during the school year, while salary concerns were the most frequently cited reason for leaving after the school year.

Teacher Recruitment and Retention in Public and Private Schools

Author(s): Ballou, Dale; Podgursky, Michael

Source: Journal of Policy Analysis and Management v17 n3 p393–417 1998

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study examines how well private and public schools are able to meet their recruitment and retention objectives, and whether private schools benefit in these efforts from market competition. Data from the 1990-91 Schools and Staffing Survey was used to estimate the association between school type and principal ratings in several logit models. New teachers

in both public and private schools were given similar performance ratings by their principals, but experienced teachers in private schools were rated significantly higher than experienced teachers in public schools after controlling for school and community characteristics and salary levels. In addition, experienced teachers in private schools received higher ratings relative to beginning teachers in private schools than did experienced teachers in public schools relative to beginning teachers in public schools. The authors argue that this implies private schools do a better job of retaining better teachers and developing the talent of their staff. The authors speculate that this is due to an advantage private schools have in recruiting, retaining and developing high quality staff including the following: greater pay flexibility; greater ability to recruit noncertified teachers; better staff development through in-service training and mentoring; and greater authority to dismiss low performing teachers.

Recruiting Smarter Teachers

Author(s): Ballou, Dale; Podgursky, Michael

Source: Journal of Human Resources v30 n2 p326–38 1995

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: In this study, the authors used an analytic model of short term flows in and out of teaching, calibrated by behavioral parameters from the NLS-72 survey, to simulate the expected effect of a 20 percent across the board increase in teacher wages on the percentage of teachers from each of four SAT percentile groupings under several assumptions regarding the behavior of districts and teachers. According to their estimations, a 20 percent wage increase would raise the share of teachers with high SAT scores (86th–100th percentile) from 5.1 to 7.6 percent in their basic model, to 9.0 percent under the assumption that districts place a great deal of weight on SAT scores, and to 5.4 percent under the assumption that districts place very little weight on SAT scores. Targeted raises to only high-ability teachers would be most efficient, raising the share of high SAT teachers to 9.2 percent. The authors argue that these changes are relatively slight, and attribute this to the fact that raising wages across the board will slow the rate of exit of existing teachers, regardless of ability, from the profession. With increases in salary, the supply of teachers grows, while the number of vacancies declines; this in turn reduces the probability that high-ability candidates will invest in teacher certification, given the poor job prospects. These perverse effects will offset the positive effect of enlarging the applicant pool.

An Econometric Analysis of Teacher Mobility

Author(s): Bempah, E. Osei; Kaylen, Michael S.; Osburn, Donald D.; Birkenholz, Robert J.

Source: Economics of Education Review v13 n1 p69–77 1994

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study examined the relationship between new teacher mobility and teacher and school district characteristics. It also sought to determine the relationship between teachers' annual earnings and selected demographic and geographic variables. A simultaneous equation model was estimated using data from 358 respondents to a survey mailed to all beginning

teachers in Missouri in 1989; the total response rate was 22 percent. Home ownership by teachers and the leadership style of school administrators were the most important predictors of teacher mobility. Earnings of teachers who did not change districts were related to education, gender, and the combination of the willingness and ability of the community to pay for education. Results concerning the earnings of teachers who did change districts were inconclusive.

A Qualitative Critique of Teacher Labor Market Studies

Author(s): Berry, Barnett; Noblit, George W.; Hare, R. Dwight

Source: Urban Review v17, n2, p98–110 1985

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This critique uses case studies of six universities and six school districts in the Southeast to analyze recruitment and retention decisions of teacher education programs, teachers, and school administrators. The authors found that neither universities nor school districts exerted much effort in recruiting teachers. School administrators pointed out qualities beyond academic excellence that they value in teachers and that influence hiring decisions, such as relating to children and parents, being involved in school extracurricular activities, and fitting into the community. Teachers reported that their mobility decisions were often related to family, with urban teachers bound to nuclear families, and rural teachers bound to extended family. Money and career opportunities were not major influences on teachers' career decisions, but poor working conditions in schools did play a large role in teacher satisfaction.

Why Didst Thou Go? Predictors of Retention, Transfer, and Attrition of Special and General Education Teachers From a National Perspective

Author(s): Boe, Erling E.; Bobbitt, Sharon A.; Cook, Lynne H.; Whitener, Summer D.; Weber, Anita L.

Source: The Journal of Special Education v30 n4 p390–411 1997

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: This study used data on nearly 5,000 teachers from the 1987–88 Schools and Staffing Survey and the 1989 Teacher Follow-up Survey to examine the association between teacher retention and various school and teacher characteristics. The authors found that teacher transfers from one school to another declined with teacher age, while teacher attrition showed a U-shape pattern, with high attrition among the youngest and oldest teachers. Teachers with certification in their teaching area and with more experience were less likely to leave their school or teaching, while teachers who had recently earned degrees were more likely to leave teaching for another career. Full-time teachers were less likely to move or leave than part-time teachers, as were teachers with higher base salaries. Family factors such as marriage and dependent children were also significant predictors of teacher attrition.

Career Paths and Quit Decisions: Evidence from Teaching

Author(s): Brewer, Dominic J.

Source: Journal of Labor Economics v14 n2 p313–39 1996

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study probed the influence of teachers' future career opportunities, particularly those in school administration, on their decisions to leave their districts. The author used longitudinal data, tracking more than 5,000 teachers in New York State (excluding New York City) between 1975–76 and 1989–90, and estimated a discrete time hazard model. For women, a teacher's current salary was negatively associated with her probability of leaving her district, while for men higher alternative rewards in the form of teacher salaries outside their district increased the likelihood of leaving. Higher administrative salaries in the district did not have a significant effect on women's leave decisions, but did reduce the likelihood that men would leave.

Do School Accountability Systems Make It More Difficult for Low-Performing Schools to Attract and Retain High-Quality Teachers?

Author(s): Clotfelter, Charles T.; Ladd, Helen F.; Vigdor, Jacob L.; Diaz, Roger Aliaga

Source: Journal of Policy Analysis and Management v23 n2 p251–271 Spring 2004

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study uses North Carolina state administrative data to examine the recruitment and retention of teachers before and after the implementation of the state's accountability system. They find that the implementation of the accountability system slightly increased the probability a teacher would leave a school and that teaching in a low-performing school increased that probability by about a quarter. However, being low performing in the era of school accountability did not make it more difficult for that school to attract an experienced teacher or one prepared at competitive college. Also, the authors find that statewide policy initiatives (including raising salaries) to increase the quality of teachers are associated with an overall increase in the experience level of teachers. After the implementation of the accountability system, there was not an absolute decline in the number of experienced teachers working in low-performing schools, which may be the result of the statewide efforts to increase teacher quality. The authors recommend that policymakers take into account the effect of accountability systems on low-performing schools' ability to retain teachers when implementing accountability systems.

The Massachusetts Signing Bonus Program for New Teachers: A Model of Teacher Preparation Worth Copying?

Author(s): Fowler, R. Clarke

Source: Education Policy Analysis Archives v11 n13 Spring 2003

Publication type: State or Regional Reports, In the Spotlight

Full text: <http://epaa.asu.edu/epaa/v11n13/>

Abstract: This article uses review of state government documents to examine the effectiveness of the Massachusetts signing bonus (and fast-track training) program for new teachers in recruiting new teachers in the state. The author argues that the cross-country recruiting efforts were expensive, relative to the number of teachers recruited, in part due to recruitment efforts in higher salary states that often had teacher shortages. The author finds that 41 percent of the teachers were working in high-needs districts. The author argues that there was inconsistent commitment by the state to meeting the needs of high-needs districts. The author finds that program participants had higher rates of attrition than found in a national sample and argues that the rate of migration out of high-needs schools was high. The author reviews program evaluations and argues that official statements about the program's effectiveness have not always been well supported by the evidence. The author then argues that this evidence suggests alternative training programs for teachers may not be effective at recruiting high numbers of teachers into the teacher workforce. The author concludes with a recommendation that experimental programs for recruiting teachers be evaluated independently.

The Effects of School District Spending Priorities on Length of Stay in Teaching

Author(s): Gritz, R. Mark; Theobald, Neil D.

Source: Journal of Human Resources v31 n3 p477–512 1996

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study examined the relationship between district spending priorities and attrition among inexperienced teachers. Using data on 9,756 white teachers in Washington state who began teaching between 1981 and 1990, the authors found that beginning teachers work for shorter periods of time in districts that spend more on central administration or on classified staff involved in teaching activities. Raising spending without raising salaries will have little effect on retention, but may be linked to higher attrition if spending is targeted at classified staff only. For female teachers, attrition from a district was most influenced by teaching salaries in other districts, while for male teachers attrition was related to salaries in occupations outside teaching.

Teachers' Long-Range Teaching Plans: A Discriminant Analysis

Author(s): Hall, Bruce W.; Pearson, Carolyn L.; Carroll, DeLos

Source: Journal of Educational Research v85 n4 p221–5 1992

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study used discriminant analysis to find differences between teachers who were contemplating quitting teaching and teachers whose long-range plans were to continue teaching. Data came from surveys of 369 public school teachers in a large urban district in Florida. Compared with those who were contemplating quitting, teachers who planned to stay in teaching reported more satisfaction with their job, less stress, and more satisfaction with their current salary. Those who planned to stay in teaching felt they had more influence over their students and had more positive attitudes toward school administration, teaching and students than did

teachers who considered leaving the profession. Teachers who planned to quit cited insufficient rewards, limited opportunity for advancement and stressful working conditions as the most important reasons why teachers leave the teaching profession.

How Does Money Affect Teachers' Career Choices? Evidence From NLS-72

Author(s): Han, You-Kyung; Rossmiller, Richard A.

Source: Journal of Education Finance v30 n1 p79–100 Summer 2004

Publication type: Scientific Research, National Reports, State or Regional Reports

Full text: URL not available

Abstract: This study uses data on people who completed teacher training as measured in the National Longitudinal Study of the High School Class of 1972 (NLS-72) to examine multiple questions around the relationship between salary and choosing to teach. The authors found that differences in salary between teaching and other careers were important to men and not important women in choosing to start teaching. Other variables that increased the probability of starting teaching were a mathematics or science major for men and a high grade point average for women. Once teaching, low salary was the main reason given by men while family responsibilities was the main reason given by women for leaving teaching. Other factors associated with teachers who remained teaching were higher education levels, having fewer children, being female, and teaching elementary grades. The author recommends that increased salaries should attract more new teachers and reduce turnover.

Why Public Schools Lose Teachers

Author(s): Hanushek, Eric A.; Kain, John F.; Rivkin, Stephen G.

Source: National Bureau of Economic Research Working Paper Series n8599 2001

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: <http://www.nber.org/papers/w8599>

Abstract: This study used longitudinal panel data from the UTD Texas Schools Project to estimate the effect of salary and school characteristics on teacher transitions in and out of school districts and out of the teacher labor force. The authors found that salary played a fairly small role in teachers' decisions to switch districts. The effect of salary was greater for males than for females, and for inexperienced teachers than teachers who had been teaching for several years. Salaries were a stronger predictor of switches between districts than of exits from teaching. School characteristics, on the other hand, were very important in switching decisions. On average, white teachers in the sample preferred districts with high-achieving, nonminority, non-low income students, but black teachers favored districts with higher black student enrollment. Because school characteristics play a larger role than existing salary differences among districts in teacher retention, the authors suggest that schools serving educationally disadvantaged populations may need to increase salaries by as much as 50 percent to neutralize the probability of teachers leaving because of student characteristics.

Why Public Schools Lose Teachers

Author(s): Hanushek, Eric A.; Kain, John F.; Rivkin, Steven G.

Source: The Journal of Human Resources v39 n2 p326–354 Spring 2004

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: <http://www.educationnext.org/unabridged/20041/76.pdf>

Abstract: This study uses Texas administrative data on teachers, schools, and students to examine factors related to teacher attrition. The authors find that teachers are more likely to leave lower achieving schools. They also find that white teachers are more likely to move away from high-minority schools while minority teachers are less likely to move to schools with higher proportions of students from the teacher's race or ethnic group. While increases in salary did reduce teacher attrition, the authors found that salary is more important to men than women in this decision. The authors address the issue of how much of a raise would it take to neutralize the increased attrition associated with differences in students' race and achievement between the typical large urban and suburban districts. The authors estimate that it would take salary increases of 9 percent to 12 percent for men and 25 percent to 43 percent for women to neutralize the effect of differences between typical large suburban and urban districts. The authors recommend that researchers work to clarify the extent that students' race is actually a proxy for working conditions in schools with high numbers of minority students. They also caution policymakers that across-the-board salary increases may not decrease the flow of teachers out of urban schools since the results of the research suggest relative salary seems an important factor in teacher movement out of schools.

No Teacher Left Behind: Results of a Five-Year Study of Teacher Attrition

Author(s): Harrell, Pamela; Leavell, Alexandra; van Tassel, Frances; McKee, Kerry

Source: Action in Teacher Education v26 n2 p47–59 Summer 2004

Publication type: Scientific Research, State or Regional Reports, In the Spotlight

Full text: URL not available

Abstract: This study mailed a self-report survey about teacher retention in the occupation to all 2,388 possible respondents, representing all teachers certified by the University of North Texas between 1995 and 2000. After a follow-up to nonresponders, 43 percent of all surveys were returned. The survey asked whether respondents had remained in teaching and about factors that might affect retention in the field. Of those responding, 79.1 percent remained in teaching. The four top reasons for leaving teaching were income, discipline problems, leaving to raise a family, and problems with parents.

Putting Teacher Labor Markets in Context: A Comparison of Turnover Across Professions and Industries

Author(s): Harris, Doug; Adams, Scott J.

Source: Economic Policy Institute Working Paper 2003 (Forthcoming)

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study compared turnover in teaching and in other professions and occupations with similar characteristics. Using data on nearly 17,000 individuals from the March Current

Population Survey for 1992 through 2001, the authors found that turnover is higher among teachers than among nurses or accountants, but lower than among social workers, all college graduates, and all workers.

Science Teachers Who Left: A Survey Report

Author(s): Hounshell, Paul B.; Griffin, Sandra S.

Source: Science Education v73 n4 p433–43 1989

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study surveyed graduates of a single university teacher education program in science over a six-year period to determine employment status and possible reasons for choosing not to teach. Of the 77 respondents, 52 percent were still teaching when surveyed. Among those not teaching, about a third had never taught and the others had taught for some period and then left teaching. Among those who had left the teaching profession, concerns about low salaries; slow advancement; and lack of prestige, respect and professional work settings were the most commonly cited reasons for deciding not to teach.

Teacher Salaries and Teacher Attrition

Author(s): Imazeki, Jennifer

Source: Economics of Education Review v24 n4 p431–449 Summer 2003

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: <http://www-rohan.sdsu.edu/~jimazeki/papers/EERAAugust2005.pdf>

Abstract: This study uses state-level administrative data from Wisconsin to examine the relationship of salary to new teachers' decisions to transfer between districts or quit teaching within the state. Key findings from this extensive data analysis include the importance of salary in neighboring districts to the decision to transfer and that higher salaries for veteran teachers are important to retaining inexperienced female teachers. Policy recommendations include targeting salary increases to districts with relatively low salaries compared to their neighbors, and it would take salary increases of at least 15 percent to 20 percent to reduce attrition from Milwaukee to levels found in the average Wisconsin district.

Teacher Turnover and Teacher Shortages: An Organizational Analysis

Author(s): Ingersoll, Richard M.

Source: American Educational Research Journal v38 n3 p499–534 Fall 2001

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study examined the factors that drive teacher turnover and school staffing problems using data from the 1990–91 Schools and Staffing Survey and the 1991–92 Teacher Follow-up Survey on 6,733 teachers. The authors found that annual turnover in teaching—including migration, attrition, retirement, layoffs and terminations—was quite high compared to other occupations such

as nursing, and that teacher retirement was a less important factor than had previously been thought. Private schools had higher annual turnover than public schools, and small schools had greater annual turnover than large schools. Rural schools had lower annual turnover than other schools, while high-poverty schools had higher annual turnover than more affluent schools. Schools that offered higher salaries, provided more administrative support, had better student discipline, and had higher levels of faculty decision-making and autonomy had lower levels of annual turnover. Teachers who were young, old, white or female were more likely to leave their schools, but mathematics and science teachers had the same rate of turnover as other teachers. Personal reasons and job dissatisfaction were the major reasons for teachers to leave their schools. Low salaries, lack of administrative support, and student discipline problems contributed to job dissatisfaction.

The Distribution of Salary Increments and its Effect on Teacher Retention

Author(s): Jacobson, Stephen L.

Source: Educational Administration Quarterly v24 n2 p178–99 May 1988

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study used data on 57 school districts in two regions of New York State to examine the effect of internal salary distribution on teacher retention. Districts with high salaries at the midcareer level relative to surrounding districts had better retention in the suburban region, while districts with high relative salaries at the senior level had the highest retention in the rural region. Retention of female teachers was more strongly linked to relative salaries than was retention of male teachers. The author suggests that the popular practice of backloading salary increments to the advantage of senior teachers is not the most efficient allocation of resources to promote teacher retention. Since teachers are most likely to leave teaching within the first five to seven years, districts with the most attractive midcareer salaries target economic incentives to teachers at the point in their career when they are most likely to migrate or leave, which may account for improved retention rates.

An Event History Analysis of Teacher Attrition: Salary, Teacher Tracking, and Socially Disadvantaged Schools

Author(s): Kelly, Sean

Source: The Journal of Experimental Education v72 n3 p195–220 Spring 2004

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study uses event history analysis of a school and staffing survey to determine how different factors such as salary and school behavioral climate affect the retention of teachers throughout the teacher's career. The researcher found that individual characteristics, such as teaching science and being fully certified, are more important factors in attrition than district or school factors, such as salary, school size, and the behavioral climate of a school. The evidence suggests that the poverty level and ethnicity of students in a school are less important to teacher attrition than the behavioral climate. Finally, despite the fact that teachers assigned to teach lower track classes are less satisfied, their attrition rate is not higher than other teachers.

Why Did We Choose Teaching Careers and What Will Enable Us to Stay?: Insights from One Cohort of the African American Teaching Pool

Author(s): King, Sabrina Hope

Source: Journal of Negro Education v62 n4 p475–91 1993

Publication type: Scientific Research, Rigorous Research, State and Regional Reports

Full text: URL not available

Abstract: This study sought to determine the reasons why a cohort of 41 African American graduates of a highly rated college of education entered teaching, and what factors might influence the retention of these teachers and others. The author found that the graduates cited idealistic views about why they became teachers, such as the opportunity to work with young people, the feeling that their abilities were well suited to teaching, and the belief that teaching contributed to the betterment of society. Prospective teachers were more idealistic than teachers already in the field, who were more likely to cite concerns such as salary, good vacation time and working hours, and job security. Salary, professional prestige, and control over their work were more important to male graduates, while female graduates felt that working conditions such as ease of combining teaching and parenting and good vacation time were important. Graduates' mothers, other relatives, college teachers and siblings were most encouraging of their decision to enter teaching, while college peers and colleagues were most discouraging. They felt that financial incentives, the development of teacher recruitment programs for minorities, more prestige and improved working conditions would help attract more minorities to teaching.

Supply and Demand of Minority Teachers in Texas: Problems and Prospects

Author(s): Kirby, Sheila Nataraj; Berends, Mark; Naftel, Scott

Source: Educational Evaluation and Policy Analysis v21 n1 p47–66 Spring 1999

Publication type: Scientific Research, Rigorous Research, State and Regional Reports

Full text: URL not available

Abstract: This study used longitudinal administrative data on 98,951 teachers to investigate the demand and supply of minority teachers in Texas. On the supply side, the authors found that Latinos and African Americans accounted for 23 percent of the Texas teaching force in 1995–96. High-risk schools—those with more than 60 percent of their students eligible for free and reduced price lunches—were staffed primarily by blacks and Hispanics. These high-risk schools also reported higher proportions of uncertified teachers than other schools. Beginning teachers were an increasingly important source of new hires, and the proportion of Hispanics and blacks among new teachers had been rising. Teacher certification tests, however, continued to be a larger hurdle for Hispanics and blacks than for other teachers. Alternative certification programs seemed to be a good source of minority teachers. On the demand side, the authors found an aging teacher population, particularly among black teachers. New Hispanic teachers had lower rates of attrition than new black or white teachers. Younger teachers had higher attrition than older teachers. Districts with lower salaries, with fewer resources, or with more students eligible for free and reduced price lunch all had higher attrition.

New Teachers and the Massachusetts Signing Bonus: The Limits of Inducements

Author(s): Liu, Edward; Johnson, Susan Moore; Peske, Heather S.

Source: Educational Evaluation and Policy Analysis v26 n3 p217–236 Fall 2004

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study uses longitudinal interview data with 50 new Massachusetts teachers (13 who received bonuses) to investigate inducements and responses to the Massachusetts signing bonus and associated alternative teacher preparation program. The authors find that the financial inducement (\$20,000 in four years) was a relatively weak inducement to enter teaching and that the alternative route into teaching was valuable to midcareer entrants into teaching. The alternative route was important because of the perceived high cost in terms of time and money of traditional teacher preparation programs. While the bonus was paid out over time, it played little or no role in teacher retention. Instead, whether teachers were retained depended on school working conditions and whether teachers felt successful. The authors argue that the \$20,000 signing bonus was not effective in achieving its goals of inducing those who never would have considered teaching into the classroom. They also argue that lack of support for alternatively prepared teachers in the schools caused an inability to retain those teachers who received the bonus. Policy recommendations include improving the training provided in the alternative preparation program, focusing efforts to support teachers on the high-needs school Massachusetts Signing Bonus Program, and/or fully funding induction programs for all teachers.

Teachers' Perceptions of Their Jobs: A Multilevel Analysis of the Teacher Follow-up Survey for 1994–95

Author(s): Liu, Xiaofeng Steven; Meyer, J. Patrick

Source: Teachers College Record v107 n5 p985–1003 Spring 2005

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: This study uses a national representative survey (i.e., Schools and Staffing Survey of 1993 and associated follow-up) to examine teacher satisfaction with student discipline, school climate, professional support, compensation, and work conditions. The study then examines the relationship between teacher satisfaction and whether teachers worked in a public or private school, whether they had left their school, and whether they were a minority. Generally teachers were most satisfied with professional support and school climate and least satisfied with compensation and discipline. Private school teachers were more satisfied in every area except compensation. Those who left their schools were less satisfied with every area except compensation. Minority teachers were less satisfied in every area measured. The researchers suggest these findings support policies to improve discipline instead of increased compensation.

How Teaching Conditions Predict Teacher Turnover in California Schools

Author(s): Loeb, Susanna; Darling-Hammond, Linda; Luczak, John

Source: Peabody Journal of Education v80 n3 p44–70 Fall 2005

Publication type: Scientific Research, Rigorous Research, State and Regional Reports

Full text: URL not available

Abstract: This study uses telephone surveys of teachers combined with state administrative data to examine the relationships between teaching conditions and various measures of school turnover (i.e., perceptions of school vacancies as well as derived measures of turnover). The researchers found that turnover is predicted by both schools student characteristics (e.g., poverty, race) and working conditions (e.g., class size, facilities, multitrack schools, salary, lack of textbooks). The researchers argue that improving working conditions can serve to offset the influence of student characteristics on school turnover. Policy recommendations focus on increasing resources available to schools serving low-income and minority students in order to improve working conditions and salaries.

Will There Be Enough Teachers?

Author(s): Murnane, Richard J.; Olsen, Randall J.

Source: The American Economic Review v79 p242–46 1989

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study examined the factors that influence the length of teaching spells for new entrants to teaching. The study used waiting time regression techniques to analyze longitudinal data on samples of new teachers from North Carolina, Colorado, and Michigan in the 1970s. In all three samples elementary school teachers had longer first teaching spells than high school teachers. In the two states with data on chemistry and physics teachers, these teachers were the first ones to leave teaching and the least likely to return to teaching later. Teaching salaries, especially early in teachers' careers, were found to have an important positive effect on the length of time spent teaching. In North Carolina, where the data included NTE scores, new teachers with high scores were more likely to leave teaching early.

The Effects of Salaries and Opportunity Costs on Length of Stay in Teaching: Evidence from North Carolina

Author(s): Murnane, Richard J.; Olsen, Randall J.

Source: The Journal of Human Resources v25 n1 p106–24 Winter 1990

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study examined the length of stay in teaching for teachers who began their careers in North Carolina from 1975 to 1984. Generalized least squares models with fixed effects, time-varying covariates, and censored observations were estimated using longitudinal state data on 13,890 teachers. Higher salaries were found to be associated with longer periods of teaching. Teachers with higher opportunity costs, as measured by subject specialties and test scores, were more likely to leave teaching than other teachers. For example, high school chemistry and physics teachers had the shortest periods of employment. Teachers with higher test scores were less influenced to stay in teaching by higher salaries than were teachers with lower test scores.

The Effects of Salaries and Opportunity Costs on Duration in Teaching: Evidence From Michigan

Author(s): Murnane, Richard J.; Olsen, Randall J.

Source: Review of Economics and Statistics v71 n2 p347–52 1989

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study used longitudinal data on 7,852 Michigan teachers, tracked for at least 10 years, to examine the influence of salaries and opportunity costs on the length of teaching spells. Teachers earning high salaries stayed in teaching significantly longer than other teachers, though a fixed effects model reduced this effect by a third. The authors speculated that this may be because some differences in salary compensate for differences in working conditions, and the fixed effects model controls for school contexts better. Salary differences between districts were also strongly and significantly associated with differences in teaching spell duration. Observed school district demographic characteristics—such as poverty rates, racial makeup, median family income and median family education—accounted for little of this difference, which may indicate the importance of district practices such as support for beginning teachers. The authors also found that teachers with better paying alternative careers, particularly physics and chemistry teachers, left teaching sooner than other teachers, as did teachers aged 30 or less when they started teaching, and white teachers.

The Influences of Salaries and “Opportunity Costs” on Teachers’ Career Choices: Evidence from North Carolina

Author(s): Murnane, Richard J.; Singer, Judith D.; Willett, John B.

Source: Harvard Educational Review v59 n3 p325–46 August 1989

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study examined the relationship between the probability of leaving teaching and teacher salary and opportunity costs. Conditional hazard models were estimated using state data on 5,100 white teachers who began their careers in North Carolina from 1976 to 1978. For secondary teachers the likelihood of leaving teaching was higher: (1) in the first years of teaching; (2) among physics, chemistry, and biology teachers; and (3) among teachers with higher NTE scores. Higher salaries were associated with longer careers in teaching. Elementary teachers had lower attrition than secondary teachers. Elementary teachers were more likely to leave the profession if they had lower salaries and higher NTE scores.

Alternative Wages and Teacher Mobility: A Human Capital Approach

Author(s): Rickman, Bill D.; Parker, Carl D.

Source: Economics of Education Review v9 n1 p73–9 1990

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study used data on 636 teachers to estimate the effect of the wage differential between teaching and alternative occupations on teacher retention. The authors estimated two predicted alternative wages: first, the average wage of occupations into which teachers in the Current Population Survey (CPS) often report moving, and second, the average wage for all occupations in the CPS. Teacher retention was significantly linked to wage differentials. Using the first predicted alternative wage, the authors found that a one percent increase in the wage differential was associated with a 2.11 percent reduction in the probability that a teacher would quit teaching, while a one percent increase in the more general predicted wage was associated with a 1.75 percent reduction in the quit probability. The difference between teachers' response to the two alternative wages indicates that teachers are more sensitive to changes in salaries of occupations they are most likely to enter than to changes in general salaries.

The Impact of Salary Differentials on Teacher Shortages and Turnover: The Case of Mathematics and Science Teachers

Author(s): Rumberger, Russell

Source: Economics of Education Review v6 n4 p389–99 1987

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study used data on 453 school districts in large metropolitan areas to examine the relationship between teacher salaries and salaries in alternative careers, and teacher turnover among mathematics and science teachers. The author found that every \$1,000 difference between average teacher salaries and average engineering salaries in a district was associated with a significant 0.19 percentage point increase in teacher shortages, measured as the percentage of mathematics and science teachers who were uncertified. Higher district teacher salaries and higher engineering salaries for women were associated with reduced teacher turnover in most states.

Teacher Turnover and the Quality of Worklife in Schools: An Empirical Study

Author(s): Seyfarth, John T.; Bost, William A.

Source: Journal of Research and Development in Education v20 n1 p1–6 1986

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study explored the relationship between quality of worklife and teacher turnover using survey data from 126 district superintendents in Virginia. The analysis focused on the size of the relationship between district-level teacher turnover rates and survey responses concerning the quality of teacher worklife. Higher pay and more fringe benefits were related to lower levels of turnover. Districts with large numbers of teachers commuting more than 25 miles to work had higher teacher turnover rates, as did districts with old and out-of-date buildings.

Teacher Retention and Attrition from Public Schools: Evidence from SASS91

Author(s): Shen, Jianping

Source: Journal of Educational Research v91 n2 p33–9 1997

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study used discriminant analysis to examine differences between teachers who stay in the same school, teachers who move to another school, and teachers who leave teaching. Data came from the 1991 Schools and Staffing Survey and the 1992 Teacher Follow-up Survey, and included responses from 3,612 teachers. Teachers who stayed in their schools had higher salaries and more experience than those who left teaching. Compared to leavers and quitters, stayers believed that they had more influence over school and teaching policies, that administrators better understood their problems, and that teaching has more advantages than disadvantages. Stayers worked in schools that had (1) lower percentages of minority students and students on free lunch, (2) more experienced teachers, and (3) higher salaries at the top end of the pay scale.

An Analysis of Occupational Change and Departure from the Labor Force: Evidence of the Reasons that Teachers Leave

Author(s): Stinebrickner, Todd R.

Source: The Journal of Human Resources v37 n1 p193–216 2002

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study examined the length of first teaching spells—periods of uninterrupted employment—using data from the National Longitudinal Survey of the High School Class of 1972. Separate proportional hazards models were estimated for 313 female teachers and 772 female nonteachers who were tracked through 1986. In the sample of teachers, the most important determinant of exit from teaching was the presence of a newborn child in the household. The study found that two thirds of the females who left teaching also left the full-time workforce altogether, suggesting that they were not lured away by higher wages in other professions.

An Examination of the Influence of Personal, Professional, and School District Characteristics on Public School Teacher Retention

Author(s): Theobald, Neil D.

Source: Economics of Education Review v9 n3 p241–50 1990

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study used data on more than 37,000 teachers in Washington State to examine the factors contributing to teachers' decisions to continue teaching in the same school district or to pursue alternative opportunities. Greater experience and higher expected salary in the next year were both associated with "stay" decisions. Young and old teachers were most likely to leave their schools but this relationship between age and retention differed somewhat by gender, as older female teachers were more likely to stay than older male teachers. Male teachers with master's degrees were significantly more likely to leave than other male teachers. Finally, contrary to other research, the authors found that teachers in "wealthy" high-assessed property value districts were more likely to leave than teachers in other districts.

Perceived Workplace Conditions and First-Year Teachers' Morale, Career Choice Commitment, and Planned Retention: A Secondary Analysis

Author(s): Weiss, Eileen Mary

Source: Teaching and Teacher Education v15 p861–79 1999

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: This study used data from the 1987–88 and 1993–94 Schools and Staffing Survey on more than 5,000 first year teachers to examine the effects of perceived workplace conditions and other factors on morale and intentions to remain in teaching. Perceived school leadership, school culture, teacher autonomy, and discretion were the main factors predicting teacher morale and intentions to remain in teaching. The author argues for the importance of supportive principals and opportunities for teacher involvement in decision-making in particular. Salary was not a major influence on morale, but did predict intentions to leave in the 1987–88 sample. Student discipline and behavioral problems were linked with low teacher morale, though when teachers were able to influence discipline policy, morale and commitment were better. Middle school teachers had the lowest morale, while elementary school teachers were most likely to report intentions to remain in teaching.

Compensation and Teacher Quality

Do Public Schools Hire the Best Applicants?

Author(s): Ballou, Dale

Source: Quarterly Journal of Economics v111 n1 p97–113 February 1996

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: This study examined the determinants of district teacher hiring decisions using data from the 1976–1991 Survey of Recent College Graduates on 15,123 recent college graduates who had completed education degrees. From a number of regression models, the authors found that college students were more likely to pursue a career in teaching if relative salaries increased and job prospects were favorable. Women and students with high GPAs were more likely to apply for teaching jobs than other students. Among those who did apply, students from more selective colleges—measured by rankings from Barron’s in 1991—were no more likely to be offered and accept full-time teaching positions than other students. Students with high GPAs and with an education major fared better in the job market than other students, but students with training in mathematics and science did not. The author offers the findings as evidence of district officials’ indifference toward college quality and training in areas of shortage. He suggests that problems with teacher quality lie on the demand side rather than the supply side, and that policy prescriptions should be adjusted accordingly.

Teacher Pay and Teacher Quality

Author(s): Ballou, Dale; Podgursky, Michael

Source: W. E. Upjohn Institute for Employment Research, Kalamazoo, Michigan, 1997

Publication type: In the Spotlight

Full text: URL not available

Abstract: This book explored the relationship between teacher pay and the quality of newly recruited teachers from the 1970s to the 1990s. Data sources included Schools and Staffing Surveys 1987–88 and 1990–91, Surveys of Recent College Graduates 1981–91, and the Educational Testing Service database. The authors found that higher teacher salaries had had little discernible effect on the quality of newly hired teachers, as measured by teachers’ SAT scores and undergraduate GPAs, the selectivity of their undergraduate alma mater, and, for secondary school teachers, whether they had a degree in an academic subject other than education. They speculate that structural features of the teacher labor market, such as the absence of pay linked to performance and low emphasis on strong academic records in initial hiring, are reasons why the quality of new teachers is not higher.

Recruiting Smarter Teachers

Author(s): Ballou, Dale; Podgursky, Michael

Source: Journal of Human Resources v30 n2 p326–38 1995

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: In this study, the authors used an analytic model of short term flows in and out of teaching, calibrated by behavioral parameters from the NLS-72 survey, to simulate the expected effect of a 20 percent across the board increase in teacher wages on the percentage of teachers from each of four SAT percentile groupings under several assumptions regarding the behavior of districts and teachers. According to their estimations, a 20 percent wage increase would raise the share of teachers with high SAT scores (86th–100th percentile) from 5.1 to 7.6 percent in their basic model, to 9.0 percent under the assumption that districts place a great deal of weight on SAT scores, and to 5.4 percent under the assumption that districts place very little weight on SAT scores. Targeted raises to only high-ability teachers would be most efficient, raising the share of high SAT teachers to 9.2 percent. The authors argue that these changes are relatively slight, and attribute this to the fact that raising wages across the board will slow the rate of exit of existing teachers, regardless of ability, from the profession. With increases in salary, the supply of teachers grows, while the number of vacancies declines; this in turn reduces the probability that high-ability candidates will invest in teacher certification, given the poor job prospects. These perverse effects will offset the positive effect of enlarging the applicant pool.

Quality Teachers: Can Incentive Policies Make a Difference?

Author(s): Cornett, L.; Gaines, G.

Source: Atlanta: Southern Regional Education Board 2002

Publication type: Issue Paper, State or Regional Reports

Full text: http://www.sreb.org/main/HigherEd/leadership/Quality_Teachers.pdf

Abstract: This report details the efforts of SREB states in implementing teacher incentive programs. Providing bonuses for advanced certification, mentoring/coaching, and teaching in hard-to-staff areas are programs that have been utilized throughout SREB states in an attempt to implement incentive programs that would also support state accountability requirements. The report also examines the history of pay-for-performance programs and the lessons learned from pay-for-performance programs implemented in the 1980s and 1990s.

Can Public Schools Buy Better-Qualified Teachers?

Author(s): Figlio, David N.

Source: Industrial and Labor Relations Review c55 n4 p686–97 July 2002

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This study examined the impact of a districtwide increase in teacher salaries on the credentials and qualifications of newly hired teachers in the district. Using data from the Schools and Staffing Survey on 2,672 teachers in 188 school districts, the authors found that districts that unilaterally raised teacher salaries relative to other districts within their county did experience a significant increase in the quality of new teacher hires, as measured by average SAT scores of teachers' undergraduate alma maters and by whether teachers have undergraduate majors and/or masters degrees in the subject that they teach. Raising salaries by one standard deviation, or approximately 10 percent, increased average alma mater SAT scores by a third of a standard

deviation, or 12 SAT points. For subject matter preparation, the effect of increasing salaries was significantly greater in nonunion districts than in unionized districts.

An Analysis of the Factors Affecting the Supply and Demand for Teacher Quality

Author(s): Galchus, Kenneth E.

Source: Journal of Economics and Finance v18 n2 p165–78 Summer 1994

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study used data on public schools in 75 Arkansas counties to investigate the supply and demand for teacher quality, as measured by the countywide teacher pass rate on a mandatory test of basic skills administered in 1985. The authors estimated county-level demand for teacher quality using educational level, median income, and race/ethnicity of the population, the school property tax rate, and spending on teacher salaries and other educational factors. They found that average teacher salaries had a significant negative effect on demand for teacher quality, and a significant positive effect on supply. The percentage of whites and college graduates in a county was positively associated with demand for teacher quality. Demand was price-inelastic, while supply was much more elastic. Higher student achievement and lower population density were associated with greater teacher quality on the supply side, suggesting that counties most in need of quality teachers had the most difficulty attracting those teachers.

Teacher Compensation and Teacher Workforce Development

Author(s): Kelley, Carolyn; Finnigan, Kara

Source: The Yearbook of the National Society for the Study of Education v104 n2 p253–273 2004

Publication type: National Reports, In the Spotlight

Full text: URL not available

Abstract: This article reviews the research on the role of teacher compensation in improving the quality of the teacher workforce through recruitment, retention, and development. The authors argue that compensation can be used to attract higher quality teachers to the workforce; however, overall increases may be inefficient, and current evidence suggests compensation may not be effective at solving issues around the distribution of teachers. They argue that compensation is a factor in teacher retention; however, other factors around working conditions are also important. The authors conclude by arguing that compensation has a role in creating a high-quality workforce, but compensation should be part of a systemic approach to enhance the teacher workforce.

Economic Perspectives on Investments in Teacher Quality: Lessons Learned From Research on Productivity and Human Resource Development

Author(s): Plecki, Margaret L.

Source: Education Policy Analysis Archives v8 n33 Summer 2000

Publication type: In the Spotlight

Full text: <http://epaa.asu.edu/epaa/v8n33.html>

Abstract: This article reviews the contributions and limitations of economic analyses of resource allocation aimed at improving teacher quality. Two major theoretical perspectives in economics were provided: productivity theory and human capital theory. Teacher compensation reforms are discussed. Finally, the author discusses implications of these economic concepts on the design and implementation of investment policies targeted at improving teacher quality. In conclusion, economic perspectives provide useful insights in addressing the complex challenge of how resources can best be allocated for the improvement of teacher quality.

Compensation Policies and Teacher Decisions

Author(s): Stinebrickner, Todd R.

Source: International Economic Review v42 n3 p751–79 August 2001

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study examined the occupational decisions of individuals certified to teach using a dynamic, discrete choice, utility maximizing model. The study used data from a sample of 551 individuals who became certified to teach between 1975 and 1985 and participated in the National Longitudinal Survey of the High School Class of 1972. An analytic framework was used to model the effects of possible changes in teacher salary policy. One policy would provide pay raises of 20 percent to all teachers, while the other policy would use the same amount of money but would target raises to those with higher academic ability. The models suggested that the two policies would raise the overall supply of teachers by equal amounts, but the second policy would increase the proportion of teachers with high SAT scores.

Performance Pay

How Does Teacher Pay Compare? Methodological Challenges and Answers

Author(s): Allegretto, Sylvia A.; Corcoran, Sean P.; Mishel, Lawrence

Source: Economic Policy Institute, Washington, D.C.

Publication type: Research reviews and books

Full text: URL not available

Abstract: This publication presents information on the debate over teacher pay, evidence of lagging teacher income growth, teacher pay and teacher quality, relative weekly earnings of teachers, as well as the fringe benefit bias. It also includes statistics from national surveys on weekly teacher pay.

Diversifying Teacher Compensation

Author(s): Azordegan, J.; Byrnett, P.; Campbell, K.; Greenman, J.; Coulter, T.

Source: Denver: Education Commission of the States December 2005

Publication type: Issue Paper

Full text: <http://www.ecs.org/clearinghouse/65/83/6583.pdf>

Abstract: This report details state efforts to reform teacher compensation since 1995, including revisiting past pay-for-performance programs. Reform efforts were placed within three frameworks: (1) Maintaining current systems while dedicating state funds to bonuses for teachers based on student achievement; (2) teacher incentive programs; (3) and pilot programs completely dedicated to linking pay to student performance. The authors discuss state, district, and school level examples including, Minnesota's Quality Compensation ("Q Comp") plan.

Sizing Up Test Scores

Author(s): Ballou, D.

Source: Education Next v2 2002

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3365706.html>

Abstract: This article addresses the issues related to using testing for high-stakes purposes such as salary determinations. The author describes a variety of issues regarding the use of testing for these purposes, including the inadequacy of tests as reliable measures of student gains, the outside factors that contribute to student gain scores that value-added systems may not analyze and control for completely, and the difficulty in comparing similar gain scores and determining what they mean.

Teachers' Attitudes Toward Merit Pay: Examining Conventional Wisdom

Author(s): Ballou, Dale; Podgursky, Michael

Source: Industrial & Labor Relations Review v47 n1 p50–61 Fall 1993

Publication type: Scientific Research, National Reports

Full text: URL not available

Abstract: The authors examined data from the 1987–88 Schools and Staffing Survey to investigate teachers’ attitudes toward a merit-pay system. The conventional belief is that teachers oppose a merit-pay system because they doubt the fairness of performance evaluations, they expect dissension and demoralization as a result of competition, and they see base payment as too low. However, based on data from 56,000 public and 11,500 private school teachers, a majority of teachers in the survey favor a merit-pay system. Teachers in districts that use merit pay do not seem demoralized. The level of pay in the district appears to have no effect on teachers’ attitudes toward merit pay. In addition, teachers in the private sector are far more favorably inclined toward merit pay than are public school teachers.

Let the Market Decide

Author(s): Ballou, Dale; Podgursky, Michael

Source: Education Next v1 n1 Spring 2001

Publication type: Issue Paper

Full text: <http://www.educationnext.org/2001sp/16ballou.html>

Abstract: This article details how the single-salary schedule in public schools is a restrictive system that does not allow compensation to adjust based on teacher performance and realities of the teacher market. Implementing new compensation systems such as knowledge- and skill-based pay are improvements but do not remove the need to align compensation models with market realities. Public schools that function in this system differ from private schools that have a greater ability to set pay based on market factors. The authors describe how private schools have fared in establishing pay in this way.

Evaluation of Year One of the Achievement Challenge Pilot Project in the Little Rock Public School District

Author(s): Barnett, Joshua H.; Ritter, Gary W.; Winters, Marcus A.; Greene, Jay P.

Source: Department of Education Reform, University of Arkansas January 2007

Publication type: Rigorous Research, State or Regional Reports

Full text: http://www.uark.edu/ua/der/Research/merit_pay.html#full_text

Abstract: This report evaluates Year 1 of the Achievement Challenge Pilot Project (ACPP) merit pay program in the Little Rock (AR) School District. Relying on data collected from the district as well as teacher surveys, the authors found that students in schools where the pilot program was operating showed improvement in mathematics test scores. Teachers who participated in the pilot program were found to be more satisfied with their salaries than teachers who did not participate in the program. Furthermore, teachers in the pilot program were no more innovative, likely to work, or counterproductive than teachers not in the program.

What it Means to Be a “Highly Qualified Teacher”

Author(s): Berry, Barnett

Source: Teacher Leaders Network, Southeast Center for Teaching Quality p1–4 Fall 2002

Publication type: State or Regional Reports

Full text: <http://www.teacherleaders.org/Resources/berryHQT.html>

Abstract: This report illustrates the characteristics of highly qualified teachers in the context of the federal No Child Left Behind Act's definition. The author discusses the inadequacy of the current assessments of new teachers and provides recommendations to improve teaching quality through teacher assessment and compensation. To this end, the report asserts the following ideas: states need to utilize more finely tuned definitions from the field to clarify who is qualified to teach; the federal government should help develop data infrastructures that track teachers' progress on teaching quality measures; universities need to invest more in assessing their new graduates in meeting the National Council for the Accreditation of Teacher Education's performance requirements; teachers who pass the test of teaching knowledge and performance assessment need to be paid more; school districts and states need to develop new teacher evaluation and relicensing tools that can push more experienced teachers toward meeting the highly qualified standard of the National Board for Professional Teaching Standards; school districts and universities should use the most accomplished teachers to prepare and support teacher candidates through alternative routes in new teacher induction programs; and finally, teacher pay systems must move to provide salary benefits to its most qualified and accomplished teachers.

Eyes on the Prize: Performance Pay for Principals and Teachers Who Produce Results

Author(s): Bushweller, Kevin

Source: American School Board Journal v186 n8 p18–22 Summer 1999

Publication type: State or Regional Reports

Full text: <http://www.asbj.com/199908/0899coverstory.html>

Abstract: The author asserts that Douglas County's performance-pay program, which includes teachers as well as administrators, is one of the most comprehensive and well - designed performance-pay systems in the country. It recognizes individual achievements as well as offers financial rewards to groups and whole schools. The district's performance-pay program is broken into four key components: outstanding performance, skills blocks, group incentive, and district responsibility pay. An outstanding performance is demonstrated with the achievement of a goal in improving student achievement. Skills blocks require teachers to demonstrate the knowledge and skills they acquired from a specified course. Group incentive pays bonuses to a teacher group that presents data showing their group effort has improved student achievement. Finally, district responsibility pay is awarded to teachers who contribute to special committees. The author discusses the advantages and drawbacks of performance-pay systems.

The Patterns of Teacher Compensation

Author(s): Chambers, J.G.; Bobbitt, S.A.

Source: Statistical Analysis Report NCES 95-829. Washington, DC: National Center for Education Statistics. January 1996

Publication type: Rigorous Research

Full text: <http://nces.ed.gov/pubs95/95829.pdf>

Abstract: This report examines teacher compensation trends in public and private schools. Data from the 1990–91 Schools and Staffing Survey (SASS), administered by the NCES, show that, on average, public school teachers can earn more than private school teachers. Analysis of the data also indicates differences in salary based on ethnicity, gender, and school level taught. The authors also consider the impact of the teacher market on salaries. The report details limitations of the research and suggestions for future research.

Negotiating a Local Pay for Performance Program Encouraged by State Mandate

Author(s): Conley, Sharon C.; Gould, Jewell; Muncey, Donna E.; White, Noel

Source: Journal of Personnel Evaluation in Education v15 n2 p137–148 Summer 2001

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: The article describes the Brevard County's pay-for-performance program, which is a new teacher compensation strategy that incorporated individual and group performance-based pay and knowledge- and skills-based pay. Teachers voluntarily participated in the program by proposing a plan for how they would satisfy the particular requirements in either the student achievement or the professional development categories. Among 1,500 teachers who participated in the program in the first year, the majority chose the option of improving their students' test scores, with many teachers participating in both options and many choosing to work in groups. The authors conducted interviews with union negotiators in Brevard County, Florida in 1999 as part of a larger study of alternative pay systems in American Federation of Teachers sites. The authors summarized many important features of successful alternative compensation efforts including no loss in pay. The alternative compensation systems should give teachers options for earning additional pay as opposed to providing only one pay choice. Recognition of members' different needs and interests in the plan is also important. Negotiators also should consider balancing compensation awards that are determined externally with locally determined awards. Finally, there must be cooperation and trust between union and management for compensation change to happen.

Pay for Performance: What Went Wrong in Cincinnati?

Author(s): Delisio, Ellen R.

Source: Education World January 28, 2003

Publication type: Issue Paper

Full text: http://www.educationworld.com/a_issues/issues/issues374b.shtml

Abstract: In this issue paper, the Cincinnati compensation reform is discussed. The district was poised to implement the reform; however the teachers union did not approve the program. The plan was to focus on education levels of teachers, classroom observations, and evaluations as determinants for performance compensation. There were still doubts, however, about the fairness

of the evaluation and the difficulties in transitioning the pay system. Ultimately, this led to the failure of the program to be launched.

School Systems and Teachers Unions Mull Over Performance Pay

Author(s): Delisio, Ellen R.

Source: Education World October 25, 2000

Publication type: Issue Paper

Full text: http://www.educationworld.com/a_issues/issues135.shtml

Abstract: This article focuses on a new salary structure adopted by the Cincinnati Federation of Teachers. Performance based pay for teachers is still being debated among many education stakeholders. The new Cincinnati program will focus on teacher evaluations for the performance measurement, similar to the program in Douglas County, Colorado. The goal is to take note of the lessons learned for the program to be a success.

Pay for Performance: More States Brave Teacher-Pay Debate

Author(s): Delisio, Ellen R.

Source: Education World January 30, 2003

Publication type: Issue Paper

Full text: http://www.educationworld.com/a_issues/issues/issues374d.shtml

Abstract: This article discusses the new policies and programs related to pay for performance that states are engaging in. The examples in the article are of new programs in Arizona, Florida, Iowa, and Kentucky. These programs all focus on teachers working together to improve student achievement as a side bonus to the compensation reform.

Pay for Performance: It Can Work – Here’s How

Author(s): Delisio, Ellen R.

Source: Education World January 29, 2003

Publication type: Issue Paper

Full text: http://www.educationworld.com/a_issues/issues/issues374c.shtml

Abstract: This article is a snapshot look at the performance pay systems in place in Colorado. The Douglas and Denver County programs have been maintained and are working on a basic level. The article indicates that the program working in Douglas County can be attributed to teacher participation in developing the system. It also indicates that Denver is not far behind in making the program sustainable.

Pay for Performance: What Are the Issues?

Author(s): Delisio, Ellen R.

Source: Education World January 27, 2003 Updated January 30, 2006

Publication type: Issue Paper

Full text: http://www.educationworld.com/a_issues/issues/issues374a.shtml

Abstract: Reforms to the traditional pay system for teachers are becoming more common. This article discusses the alternative proposals that have gained national attention. Many districts are moving toward one of many types of performance pay for teachers. Advocates of the programs say that they will help attract and retain teachers. The article indicates, however, that there are still flaws to this reform to be addressed by research.

ProComp: Denver Public Schools Professional Compensation System for Teachers

Author(s): Denver Public Schools

Source: Denver Public Schools June 2005

Publication type: State or Regional Reports

Full text: <http://denverprocomp.org/generalinformation>

Abstract: ProComp is a compensation system that links teacher pay to the school district's instructional mission. Designed in a partnership between the Denver Classroom Teachers Association and Denver Public Schools, ProComp has received national attention because it rewards teachers for their professional accomplishments while linking pay to student achievement. ProComp promotes improved student achievement by rewarding teachers with bonuses and salary increases for improved student performance and encouraging talented teachers to work in schools and assignments with the greatest needs.

Individual Teacher Incentives and Student Performance

Author(s): Figlio, David N.; Kenny, Lawrence W.

Source: National Bureau of Economic Research, NBER Working Paper No. W12627, October 2006

Publication type: Rigorous Research

Full text: <http://pcsi.go.kr/files/w12627.pdf>

Abstract: This article focuses on the relationship between teacher performance and student achievement, at an individual level. Using existing national data sources along with a survey of teachers, the study finds that test scores are higher in schools that offer individual financial incentives for performance. The relationship between the presence of merit pay and student achievement was found to be strongest in schools that had the least parental oversight. This article has significant policy implications for future compensation reform.

Paying Teachers Properly

Author(s): Finn, Chester E., Jr.

Source: Education Next v1 Winter 2005

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3258871.html>

Abstract: This article discusses the need for updating the teacher salary schedule. The current system, the uniform salary schedule, has come under pressure in recent years as failing to adequately compensate teachers. This paper asserts several flaws with the system and indicates the need for reform in the future.

Merit Pay and Job Enlargement as Reforms: Incentives, Implementation, and Teacher Response

Author(s): Firestone, William A.

Source: Educational Evaluation and Policy Analysis v13 n3 p269–288 Fall 1991

Publication type: Scientific Research, Rigorous Research

Full text: URL not available

Abstract: This is an exploratory study of two school districts: one with a merit-pay system and another with a job-enlargement program. The merit-pay system provides financial rewards to teachers who demonstrate excellent performance in the form of bonuses (true merit pay) or permanent salary increases (master teacher programs). The job-enlargement program rewards some teachers to do more and different work. The findings suggest that job enlargement is more likely than merit pay to improve teacher motivation. It also enriches teaching materials and the range of instructional practice while merit pay standardizes it. Money does not contribute directly to teachers' commitments. Intrinsic incentives can be increased in the job-enlargement system; however, a crucial problem in getting intrinsic rewards for teachers is the lack of time.

Focus on Teacher Salaries: Recent Actions in the SREB States

Author(s): Gaines, Gale F.

Source: Southern Regional Education Board October 2003

Publication type: Issue Paper, State or Regional Reports

Full text: http://www.sreb.org/scripts/Focus/Reports/Teacher_Salaries_9_2003.pdf

Abstract: This article focuses on recent actions taken on reforming teacher salaries in states that are members of the Southern Regional Education Board. Teacher compensation has become an indicator for progress in education. Recently, many states have taken action to increase teacher pay through diverse plans. Some states opt to increase pay over time for all teachers, other states have legislated on employee benefits, while still other states focus on performance pay for teachers.

Teacher Salaries and State Priorities for Education Quality: A Vital Link

Author(s): Gaines, Gale F.

Source: Southern Regional Education Board (Educational Benchmarks 2000 Series)

Publication type: State or Regional Reports, In the Spotlight

Full text: <http://www.sreb.org/main/Benchmarks2000/TeacherSalaries.pdf>

Abstract: This report reviews the pay structures for teachers to illustrate how salary policies support (or do not support) state priorities for education. The major issues addressed in this report are (1) goals that Southern Regional Education Board states have set for teacher salaries,

(2) lessons that states have learned about linking teacher salaries to performance and accountability, (3) how competitive teacher salaries are, (4) the effects of supply and demand on teacher compensation, and (5) states' efforts to recruit and retain quality teachers. Three major challenges include teacher shortages in certain subjects; too few teacher-education graduates getting into teaching; and accountability programs that raise the stakes for getting a quality teacher in every classroom. Finally, the author suggests directions for state policymakers to improve teachers' salary policies that promote student achievement and quality teaching. State leaders should continue to support salary goals, take actions that encourage good teachers to remain in teaching, conduct systematic reviews of supply and demand and teacher compensation, develop a method to check competitiveness of teacher salaries to address specific needs in salary decisions, and develop a plan for tying salary decisions to student achievement and accountability.

Options for Studying Teacher Pay Reform Using Natural Experiments

Author(s): Glazerman, S.; Silva, T.; Addy, N.; Avellar, S.; Max, J.; McKie, A.; Natzke, B.; Puma, M.; Wolf, P.; Ungerer Greszler, R.

Source: Washington, DC: Mathematica Policy Research, Inc. March 2006

Publication type: Policy

Full text: <http://www.mathematica-mpr.com/publications/pdfs/teacherpayreform.pdf>

Abstract: This article details the potential studies that can be undertaken on teacher incentive programs throughout the nation. There are various approaches to teacher incentive pay and conducting a rigorous study of teacher pay reform is a challenge. This report detailed potential case studies for researching seven different incentive pay programs in different states and presents recommendations on how secondary data could be used to study these programs. The report also highlights issues regarding sample size adequacy, cost, and other factors to consider when planning a rigorous research project such as this.

Alternative Teacher Compensation

Author(s): Goorian, Brad

Source: ERIC Digest Number 142, ERIC Clearinghouse on Educational Policy and Management Fall 2000

Publication type: In the Spotlight

Full text: <http://eric.uoregon.edu/pdf/digests/digest142.pdf>

Abstract: This report examines various alternative methods of teacher compensation. The single-salary schedule, which pays individual teachers on the basis of their years of experience and educational units or degrees has been criticized for valuing seat time more than teaching skill. The four main types of alternative compensation systems are discussed: Pay for performance, knowledge- and skills-based pay systems, school-based performance award programs, and compensation for certification with the National Board for Professional Teaching Standards. Cincinnati is the first big-city public school district to replace the traditional salary structures with compensation based on evaluations of teachers grouped into five career categories ranging from "apprentice" to "accomplished," with specific goals and standards

attached to each. Denver's pilot program offers three different pay-for-performance plans. The performance is evaluated from standardized test scores, achievement on teacher-made assessments, and acquisition of new knowledge and skills. Douglas County, Colorado, used multifaceted, comprehensive compensation plans that combine pay-for-performance plans and knowledge- and skills-based plans. The author suggests many resources for guidance in teacher compensation, including the Consortium for Policy Research in Education's Teacher Compensation Project; a Milken Family Foundation report; and publications by the American Federation of Teachers, the National Commission on Teaching and America's Future, and Education Week.

Developing a Performance Pay Plan for Teachers: A Process, Not an Event

Author(s): Hartman, D.; Weil, R.

Source: Paper submitted to the American Federation of Teachers Research Department January 30, 1997

Publication type: Policy, Issue Paper

Full text: <http://www.aft.org/topics/teacher-quality/downloads/perfplan.pdf>

Abstract: This report details the performance pay plan in Douglas County, Colorado. Information is presented on the inspiration to reform teacher compensation in the county, along with the structure of the committee and process for developing the performance pay system. There is also an overview of the plan implemented by the county and lessons learned. The program consists of multiple performance pay options, providing teachers with a sense of professional collaboration. The goal of the program is to encourage higher levels of teacher performance while avoiding old concepts of merit pay based on student achievement.

Better Pay for Better Teaching: Making Teacher Compensation Pay Off in the Age of Accountability

Author(s): Hassel, B.C.

Source: Washington, DC: Progressive Policy Institute May 2002

Publication type: Policy

Full text: http://www.ppionline.org/documents/Hassel_May02.pdf

Abstract: This report focuses on the teacher compensation debate. The author reviews the arguments on both sides, both for and against compensation reforms such as performance pay. Insight is offered on the current system of teacher pay and the need for reform, and what factors drive teacher pay. Reformed programs across the nation are detailed and the article offers recommendations to guide policy makers considering reforming their teacher pay systems.

"Show Me The Money!"

Author(s): Hopkins, Gary

Source: Education World June 23, 1997

Publication type: Issue Paper

Full text: http://www.educationworld.com/a_admin/admin/admin001.shtml

Abstract: This brief article focuses on teacher pay reform in the education system. Through a review of literature, the author suggests that secure funding is an important step to implementing and continuing performance pay compensation reforms. The article points toward a couple of case site examples that support this. It also suggests 10 keys to success of performance pay programs, based on a review of the literature.

Wage Distortion

Author(s): Hoxby, Caroline M.; Leigh, Andrew

Source: Education Next v2 Spring 2005

Publication type: Scientific Research

Full text: <http://www.hoover.org/publications/ednext/3220721.html>

Abstract: This article explores the issue of declining teacher quality among female teachers. Data shows that women entering the teaching profession are scoring lower on aptitude test than in the past. Hoxby suggests the lure and appeal of other professions is drawing females away from teaching. This article also discusses the effects of unions and collective bargaining, and how their existence has potentially made the gap between the salaries of high- and low-aptitude teachers increase.

A Case Study of the Charlotte-Mecklenburg Public Schools School-Based Performance Award Program

Author(s): Johnson, A.; Potter, P.; Pughsley, J.; Wallace, C.; Kellor, E.; Odden, A.

Source: Madison, WI: University of Wisconsin–Madison, Wisconsin Center for Education Research 1999

Publication type: State or Regional Reports

Full text: <http://www.wcer.wisc.edu/cpre/papers/Charlotte-Mecklenburg%20SBPA%204-99.pdf>

Abstract: This report details the history of the pay-for-performance program in Charlotte-Mecklenburg County. The initial plan evolved into a school-based performance award program rewarding individual and group improvements

The Uniform Salary Schedule

Author(s): Jupp, Brad

Source: Education Next v1 Winter 2005

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3251881.html>

Abstract: This brief article looks at Denver's merit pay system, and the union and teacher response to these programs. Recognizing that Denver's single salary schedule could properly reward teachers in today's current landscape, Jupp acknowledges that teachers are in favor in creating a salary schedule that takes into account performance.

Douglas County Colorado Performance Pay Plan

Author(s): Kelley, Carolyn

Source: Madison, WI: Consortium for Policy Research in Education 2000

Publication type: State or Regional Reports

Full text: <http://wcer.wisc.edu/cpre/papers/pdf/Douglas%20SBPA%205-00.pdf>

Abstract: This article details the history of the pay for performance program implemented in Douglas County, Colorado in 1994. This program was developed in the height of a population boom in the county, at a time where there was growing desire to implement such a system. The program would remove the single salary schedule and reward teachers based on skill. The article looks at changes made to the program over time, in order to focus on the strong aspects of the program, such as promoting teacher skill development and group collaboration.

School-Based Performance Award Programs, Teacher Motivation, and School Performance: Findings from a Study of Three Programs

Author(s): Kelley, Carolyn; Heneman, Herbert, III; Milanowski, Anthony T.

Source: Philadelphia: University of Pennsylvania, Graduate School of Education, Consortium for Policy Research in Education April 2000

Publication type: Rigorous Research, State or Regional Reports

Full text: <http://www.cpre.org/Publications/rr44.pdf>

Abstract: This study looks at school-based performance award programs and their impact on student performance suggesting that the implementation of these programs has had a positive impact on student performance. Using survey data, the authors describe the benefits of increased expectations, and how individual and group motivation impacts teacher motivation. The article goes on to examine principal reactions to expectancy changes.

School-based Performance Award Programs and Teacher Motivation

Author(s): Milanowski, Anthony

Source: Journal of Education Finance v25 n4 p517-544 Spring 2000

Publication type: Scientific Research

Full text: URL not available

Abstract: This article summarized the results of a qualitative study that examined school-based performance award programs in North Carolina, Kentucky, and Maryland. Expectancy theory guided the design of the study and the interpretation of the results. The NC and KY programs rewarded teachers and the program in Maryland put funds into an account for programs. The results showed that the bonus was as desirable as the intrinsic rewards of teaching (e.g., personal satisfaction from a student's achievement). Teachers did not believe that the bonuses would be awarded (because a previous one had not been given) and that the amount was too small. The teachers also reported increased stress trying to meet performance goals. Additionally, a proportion of the teachers did not believe that the performance goals could be met. The author also examined the effectiveness of sanctions (e.g., loss of pride or loss of job security) on teacher

motivation, and found that in Kentucky loss of pride was more of a motivating factor than loss of job security. (The teachers in Maryland were unaware of the program had little knowledge of the program.) The article concluded with recommendations for school-based performance awards: (1) provide support to increase teacher's expectancy, (2) make a strong connection between rewards and school performance, (3) the size of the award needs to be large enough to matter, (4) principals need to provide active support for the program, and (5) design the program in a way that teachers perceive as fair.

Performance Pay System Preferences of Students Preparing to Be Teachers

Author(s): Milanowski, Anthony

Source: WCER Working Paper No. 2006-8. Madison, WI: University of Wisconsin-Madison, Consortium for Policy Research in Education October 2006

Publication type: Scientific Research, Policy, Issue Paper

Full text:

http://www.wcer.wisc.edu/publications/workingPapers/Working_Paper_No_2006_08.pdf

Abstract: This paper presents the result of a study designed to answer three questions: (1) Do college students preparing to be K-12 teachers view pay for performance as a desirable or undesirable attribute of a teaching job? (2) Do the students prefer some forms of pay for performance (e.g., knowledge- and skills-based pay, group-based performance pay, or individual performance pay based on objective indicators, such as student achievement) over others? and (3) Do students' work values and personality characteristics influence their preferences for performance pay or for different performance pay systems? The author conducted focus groups about pay for performance with college students (education majors, pre-education majors and their equivalents in other fields), and a survey with education or pre-education as their major. During the focus groups, the students expressed interest in pay for performance but recognized the issues with measuring performance. The results of the survey showed that students preferred pay for individual performance and pay for increases in knowledge and skills about equally, and these ratings were higher than those for increases in pay based on group performance or pay increases not based on performance at all. Finally, personality and work values had a weak association with respondents' pay system preferences.

Reinventing Teacher Compensation Systems

Author(s): Kelley, Carolyn; Odden, Allan

Source: Consortium for Policy Research in Education (Finance Brief), Fall 1995

Publication type: In the Spotlight

Full text: <http://www.ed.gov/pubs/CPRE/fb6/index.html>

Abstract: This report provides a history of changes in teacher compensation during the last century and a discussion of key organizational and educational changes that could be reinforced by a new teacher compensation structure. The discussion builds upon the context of changes in the society and in education systems. Three types of new compensation systems are described: skills- or competency-based pay, pay-at-risk, and group-based performance awards. The authors also provide examples of implemented innovative compensation programs, including the

Kentucky Instructional Results Information System, the South Carolina School Incentive Reward Program, the Douglas County, Colorado, pay plan, and school-based rewards in Dallas. The authors identify 10 key process principles for a successful compensation system: (1) involvement of all key parties; (2) broad agreement on the most valued educational results; (3) sound, comprehensive evaluation systems; (4) adequate funding; (5) investments in ongoing professional development; (6) avoidance of quotas; (7) good working conditions; (8) management maturity; (9) labor maturity; and (10) persistence. Technical principles of each innovative compensation system were suggested.

The Motivational Effects of School-Based Performance Awards

Author(s): Kelley, Carolyn; Odden, Allan; Milanowski, Anthony; Heneman, Herbert, III

Source: Consortium for Policy Research in Education (Policy Brief) Winter 2000

Publication type: Scientific Research, State or Regional Reports

Full text: <http://www.cpre.org/Publications/rb29.pdf>

Abstract: From 1995–98, the Consortium for Policy Research in Education teacher-compensation researchers conducted interviews and survey questionnaires of teachers and principals at three sites to measure the motivational effects of school-based performance award (SBPA) programs. The Charlotte-Mecklenburg’s benchmark goals program and Kentucky’s accountability program provided salary bonuses to all teachers in the school who met the educational objectives. Maryland’s school performance program provided monetary awards to schools that showed progress toward state standards. Goal clarity was related positively to school performance. Providing rewards for too many goals could diffuse effort and responsibility so teachers would lose focus on how to achieve the goals. The most important motivation to determine whether schools succeeded in meeting the SBPA performance goals was whether teachers thought they could produce the desired improvements. On average, teachers neither agreed nor disagreed that the SBPA programs were fair; teachers who perceived the programs as fair are likely to believe that their efforts could improve student performance. SBPA programs work to focus teacher and system attention on key educational goals. The authors suggest that the motivational effects of SBPA programs could be strengthened by a better communication of goals, enhanced teacher expectancy, enhanced teacher perceptions that earned awards will be funded, and experimentation with larger award amounts.

Catching up With the Vaughn Express: Six Years of Standards-Based Teacher Evaluation and Performance Pay

Author(s): Kellor, Eileen

Source: Educational Policy Analysis Archives v13 n7 2005

Publication type: State or Regional Reports

Full text: <http://epaa.asu.edu/epaa/v13n7/v13n7.pdf>

Abstract: The Vaughn Next Century Learning Center is a public conversion charter school in the Los Angeles Unified School District. Vaughn Center developed a new knowledge- and skills-based pay program in 1997–98 school year. This also came with a new evaluation system. This paper provides an overview of the development and evolution of the performance-pay program

and the new teacher evaluation system implemented at the Vaughn Center. Vaughn teachers' reactions to these innovations are discussed. Finally, the author offers key recommendations to help those who plan to implement knowledge- and skills-based pay or standards-based teacher evaluation.

Cincinnati: A Case Study of the Design of a School-Based Performance Award Program

Author(s): Kellor, E.; Odden, A.

Source: Consortium for Policy Research in Education Working Paper. Madison, WI: University of Wisconsin–Madison 1999

Publication type: State or Regional Reports

Full text: <http://www.wcer.wisc.edu/cpre>

Abstract: This report details the process of implementing a pay-for-performance pilot in Cincinnati schools. This process involved the school district and the union working together to devise a plan to create a program that would benefit schools as well as teachers. The need to create a school-based performance award program was not only aimed at improving student performance, but also to raise accountability and to incorporate that into the program. The article details changes to the plan throughout time.

Dollars and Sense

Author(s): Keys, Benjamin J.; Dee, Thomas S.

Source: Education Next v1 Winter 2005

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3258651.html>

Abstract: Merit-pay programs implemented in Tennessee were designed as career ladders. The career ladder programs were designed to reward teacher performance while not basing rewards on student achievement. These programs delivered mixed results among teachers. Teachers who participated in the career ladder program saw higher gains in performance of their students versus teachers who did not.

All Teachers Are Not the Same

Author(s): Koppich, Julia E.

Source: Education Next v1 Winter 2005

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3251891.html>

Abstract: This article looks at the need to adapt a new teacher salary schedule that is based on incorporating all facets of teaching, not just student performance into a merit-based system. Existing compensation systems do not acknowledge the complexity of the teaching profession, and does not reward performance. Compensation that relies solely on test scores fails to address value-added issues associated with measuring teacher performance.

Linking Teacher Pay to Student Scores

Author(s): LaFee, Scott

Source: The School Administrator October 2000

Publication type: State or Regional Reports, Issue Paper

Full text: <http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=4158>

Abstract: This article addresses the Colonial School District (Plymouth Meeting, PA) vote to create a merit-pay system, and the opposition faced in implementing that system. LaFee looks at the struggles between the local teacher union and school district to create a system pleasing both groups. Ultimately the merit-pay program would be individual- and group-based. LaFee goes on to previous attempts at pay-for-performance throughout the United States.

Quantity Over Quality

Author(s): Lakdawalla, Darius

Source: Education Next v3 Summer 2002

Publication type: Issue paper

Full Text: <http://www.hoover.org/publications/ednext/3365326.html>

Abstract: This brief article looks at declining quality of teachers, reduction in class size, and the increase in the per pupil spending, and traces that decline to the increase in demand for high quality employee outside of education. Lakdawalla argues that while the quality of teachers is declining, the impact on students cannot be directly linked to that decline. Changing market conditions lead to the redistribution of educational inputs within a system to possibly offset the decline.

Performance Pay and Teachers' Effort, Productivity and Grading Ethics

Author(s): Lavy, Victor

Source: National Bureau of Economic Research. NBER Working Paper No. 10622 July 2004

Publication type: Rigorous research

Full Text: <http://www.nber.org/papers/10622>

Abstract: This article examines a performance pay plan in Israel featured cash bonuses for teachers whose students showed improvement on high school matriculation exams in mathematics, Hebrew, and English. Students' passing rates and average exam scores were the indicators used to measure student achievement. The program was structured in the form of a 'rank-order tournament' which rewarded teachers for their performance relative to teachers of the same subject. The theoretical framework relying on economic theory, suggests that extrinsic incentives can improve performance. Using school-level data, the effects of the incentive program are measured by using a regression discontinuity as propensity score matching. Results suggest that the incentive program had a positive impact on student achievement, which is attributed to changes in teacher performance.

Lifting Teacher Performance

Author(s): Leigh, Andrew; Mead, Sara

Source: Progressive Policy Institute (Policy Report) Spring 2005

Publication type: Issue Paper, Policy

Full text: http://www.ppionline.org/documents/teachqual_0419.pdf

Abstract: This paper analyzes promising new research about teacher quality and the incentives for teachers to do better. The authors assess current teacher quality approaches and offer recommendations to help policymakers modernize how teachers are prepared, hired, evaluated, and compensated. The authors discuss the current teacher quality problems. They point out that some traditional solutions do not work to solve these problems. They suggest many promising alternatives based on research studies, including performance-based pay, paying teachers more to work in hard-to-staff schools, and alternative teacher certification. Finally, they provide policy recommendations to improve teacher quality.

On Rewards, Punishments, and Possibilities: Teacher Compensation as an Instrument for Educational Reform

Author(s): Malen, B.

Source: Journal of Personnel Evaluation in Education v12 n4 p387-394 January 1999

Publication type: Research reviews and books

Full Text: <http://www.springerlink.com/content/g38r4842586g2170/>

Abstract: This brief article provides commentary on existing literature on teacher compensation that focuses on three major themes: assessing school-based rewards, envisioning other promising possibilities, and evaluating policy as well as people as they relate to teacher compensation and educational reform. The examination of these themes allows for the critique of existing policy initiatives, and the development of new initiatives in teacher compensation for the future.

Measurement Error or Meaningful Change? The Consistency of School Achievement in Two School-Based Performance Award Programs

Author(s): Milanowski, Anthony T.

Source: Journal of Personnel Evaluation in Education v12 n4 p343-363 1999

Publication type: rigorous research

Full text: <http://www.springerlink.com/content/jm738357491p0520/>

Abstract: This paper looks at data from Kentucky and the Charlotte-Mecklenburg, NC school district school-based performance award programs. Due to the possibility for measurement error, the researchers look at data points over time in order to determine whether improvements in student achievement were based on meaningful change, or statistical error. The research concludes with a discussion of potential reasons for the inconsistencies observed in school classifications.

Incentives for Teachers: What Motivates, What Matters?

Author(s): Moore Johnson, Susan

Source: Educational Administration Quarterly v22 n23 p54–79 Spring 1986

Publication type: Research Reviews and Books, Issue Paper

Full text: URL not available

Abstract: The article examines intrinsic and extrinsic motivation theories related to teachers, specifically, pay as an extrinsic factor and pride in one's work as an intrinsic factor. The author reviews the debates regarding merit pay compensation system and how they affect teacher motivation. The research suggests that some concerns regarding pay for performance are echoed in discussions of career ladders and differentiated staffing plans, in that these systems are put into place as incentives for those teachers who want more and varied responsibility in their jobs. With organizational incentives, extrinsic rewards are targeted to the individual interested in financial gain. The author suggests further research should be conducted to understand the implications and interaction of intrinsic and extrinsic motivation factors in education.

Merit Pay and the Evaluation Problem: Why Most Merit Pay Plans Fail and a Few Survive

Author(s): Murnane, R.; Cohen, D.

Source: Harvard Educational Review v56 n1 p1–17 1986

Publication type: Scientific Research, Research Reviews and Books

Full text: URL not available

Abstract: Applying microeconomics to the issues of merit pay, this article examines why most merit pay systems have failed, and samples a few districts that have had success with merit pay plans. A historical review shows that merit pay systems were considered and implemented as early as 1918. Since that time, interest has grown both in paying teachers based on merit and on the impact of that reward structure. The authors argue that the merit pay models, as commonly implemented, have failed to motivate teachers to perform at higher levels. Interviews with principals revealed that merit pay systems are viewed as a hindrance, and can be decisive, hampering their abilities to work effectively and closely with teachers. The authors note that teacher performance evaluations should be carried out by experienced and knowledgeable administrators in order to be effective in determining performance-based incentives. In evaluating merit pay systems that have been implemented successfully, the authors found no evidence of sustained merit pay systems in urban districts, but did find evidence of success among a large number of smaller districts of homogenous students. The authors examined six school districts and found similar characteristics among them: they were the top ranked districts in their regions, the working conditions were positive, and the salaries were higher than other areas and were supplemented by merit pay. Other characteristics of these compensation systems were noted as having attributed to their success – making everyone feel important, extra pay for extra work and teacher participation in the plan design. However, these six systems did not appear to have impacted overall teacher quality, how teachers taught their students, or overall teacher motivation.

Cincinnati's New Approach to Teacher Compensation

Author(s): Odden, Allan

Source: School Business Affairs v68 n5 p20–23 Spring 2002

Publication type: State or Regional Reports

Full text: URL not available

Abstract: This article describes the Cincinnati public school district's efforts in restructuring its teacher compensation system from a traditional single-salary schedule to a performance-based payment system, which uses both a knowledge- and skills-based salary structure and school-based performance award. The three major steps in making this change are: (1) developing acceptable teaching standards, which then were organized into four domains: planning and preparing for student learning, creating a learning environment, teaching for learning, and professionalism; (2) restructuring of teacher evaluation system; and (3) creating a new salary schedule that includes five categories of teachers: apprentice, novice, career, advanced, and accomplished. The author also summarizes findings from the pilot implementation of this new teacher compensation system in 10 schools during 1999–2000 school year.

New and Better Forms of Teacher Compensation Are Possible

Author(s): Odden, Allan

Source: Phi Delta Kappan v81 n5 p361–366 Winter 2000

Publication type: In the Spotlight

Full text: URL not available

Abstract: The author proposed a change in the way teachers are paid to simultaneously enhance teaching and reinforce the goals and strategies of standards-based education reform. The author discusses the reasons for the past failure in changing the teacher compensation structure. The creation of the National Board for Professional Teaching Standards and many private sectors that work on knowledge- and skills-based pay has made the change in teacher compensation structure more viable. The reports from the National Commission on Teaching and America's Future and the Consortium for Policy Research in Education regarding teaching salary structure also have helped pave the way for workable changes in teacher compensation. Many states, districts, and teacher unions already are moving forward to change the pay structures. The author discusses three different sets of tools for knowledge and skills assessment: for beginning teachers, midcareer teachers, and experienced teachers. The author offers an example of how the tools could be crafted into a new teacher salary schedule. Finally, the author discusses how the performance-based pay would affect teachers and schools.

Incentives, School Organization, and Teacher Compensation

Author(s): Odden, Allan

Source: Consortium for Policy Research in Education Winter 1995

Publication type: In the Spotlight

Full text: URL not available

Abstract: In order for compensation to serve as a reinforcement for organizational goals, the norms of the compensation structure must be aligned with the norms of the school organization. This report reviews the history of teacher compensation structure. The author also discusses

exemplary cases of teacher compensation-system reform. Drawing from the lessons learned from the past, the author concludes that school organization, incentives, and teacher compensation should be closely linked. The incentives imbedded in the compensation system function best when aligned with the broader goals of the organization and directly reinforce them. Teacher compensation should change from the traditional single-salary schedule to a salary schedule that provides increments based on direct professional measures of teacher knowledge and skills, and which also includes performance awards for teams and schools. Developing, designing, implementing, and funding such new compensation strategies raise many technical, financial, and political issues, all of which need additional research.

Defining Merit: How Should We Pay Teachers?

Author(s): Odden, Allan; Ballou, Dale; Podgursky, Michael

Source: Education Next v1 n1 p16–25 Spring 2001

Publication type: In the Spotlight

Full text: <http://www.educationnext.org/2001sp>

Abstract: The article provides two perspectives on merit-pay system. The first perspective suggests a design of compensation systems that provide direct incentives for teachers to improve the quality of their instruction and to raise student achievement while aligning with current education policy. A discussion on pay for knowledge and skills, pay for performance, and pay for professionals is provided. The authors give two examples of innovative changes in the teacher pay system: the Cincinnati Public Schools and the Vaughn Next Century Learning Center. The second perspective also supports a knowledge- and skills-based pay system. The use of external assessments is compared to internal peer review. Teacher compensation in private schools is discussed. Pay for knowledge and skills is a flexible alternative to the single-salary schedule; however, the essential feature of the single-salary schedule (paying teachers with equivalent credentials equally) is retained.

Experimenting with Teacher Compensation

Author(s): Odden, Allan; Wallace, Marc

Source: The School Administrator October 2004

Publication type: Policy, Issue Paper

Full text: <http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=1128>

Abstract: This issue paper argues that the primary sources of teacher salary data—annual reports from two teacher unions—do not provide a comprehensive picture of teacher compensation. The authors suggest that the National Center for Education Statistics and the Bureau of Labor Statistics partner to present more thorough data on teacher pay, including fringe benefits, to inform policymakers, and state and district level decision makers. The authors summarize a series of issues around teacher salaries and offer an alternative analysis of teacher compensation. The authors address how components of the teacher salary and benefits system can impact the overall analysis of teacher compensation, including: (1) shorter work days and work years for teachers (nine- or 10-month school years) versus full-year employees; (2) teachers' starting salaries as compared to other beginning professionals; (3) fringe, or other

nonsalary benefits, such as health insurance and retirement plans; and (4) trends within a state's salary schedule, including raises.

Rewarding Expertise

Author(s): Odden, Allan

Source: Education Next v1 Winter 2001

Publication type: In the Spotlight, Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3390871.html>

Abstract: The author discusses the history of a traditional teacher pay model and why it is important to change the pay structures today. He emphasizes the importance of aligning compensation with state and district standards to account for students' academic achievement. Knowledge and performance are key components of recent models that are currently being implemented. Newer compensation models, as previously implemented and followed in Cincinnati and Los Angeles, must have the full support of teachers and administrators in order for them to be successful. Teachers should be encouraged to pursue advanced degrees and supplementary professional development activities to enhance their abilities in their teaching area, which should ultimately help to increase student achievement. Principals require rigorous training to be able to conduct effective performance reviews and award appropriate incentives.

School-Based Performance Award Programs: Design and Administration Issues Synthesized from Eight Programs

Author(s): Odden, Allan R.; Kellor, Eileen; Heneman, Herbert; Milanowski, Anthony

Source: Madison, WI: Consortium for Policy Research in Education 1999

Publication type: State of regional reports, Issue paper

Full text: <http://www.wcer.wisc.edu/cpre/papers/pdf/SBPA%20Synthesis%208-99.pdf>

Abstract: The design elements of 8 School-Based Performance Award (SBPA) programs are examined in this report. The programs at Boston, Charlotte-Mecklenburg, Cincinnati, Dallas, Philadelphia, Vaughan Next Century Learning Center (CA) and SBPA's in Kentucky and North Carolina are detailed. The report discusses common strategies as well as program-specific elements of these programs.

Better Salaries for Teachers in Texas Public Schools

Author(s): Patterson, C.; Story, J.

Source: Texas Public Policy Foundation 2005

Publication type: Research review and books, Policy, Issue paper

Full text: <http://www.texaspolicy.com/pdf/2005-11-teacherpay-rr.pdf>

Abstract: This article takes a look at teacher salaries in Texas, exploring them by not solely comparing them to the national average. It is argued that comparing teacher salaries to the national average does not account for the economic condition of the state. In 2005 Texas teachers were paid on average \$6,100 less than the national average. However, citing a 1991 SREB report

found that included cost of living adjustments in it, Texas teachers were earned a comparable salary to the national average. This article also explores the idea of looking at teacher pay by comparing salaries to similar professions. Patterson goes on to examine teacher salaries by exploring different market conditions. In order to determine what is the ‘Right Pay’ for teachers, these types of market considerations must be taken into account.

Fringe Benefits

Author(s): Podgursky, Michael

Source: Education Next v3 Summer 2003

Publication type: In the Spotlight, Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3347981.html>

Abstract: In a review of alternative teacher compensation models that have been used in school districts around the country, the authors present the prevalent approaches, and highlight the implementation in selected districts. Based on the premise that teachers can be the most important factor in positively impacting student-achievement, states and school districts are introducing new measures to attract and reward high-quality teachers. These strategies include market-based salary incentives for certain populations of teachers, and pay-for-performance structures that reward both improved teacher performance and increased student achievement. The article highlights alternative compensation approaches adopted by schools and districts around the country and summarizes the outcomes.

The Single Salary Schedule for Teachers in K-12 Public Schools

Author(s): Podgursky, Michael

Source: Center for Reform of School Systems 2002

Publication type: In the Spotlight, Policy, Issue Paper

Full text: URL not available

Abstract: This paper begins with an historical background of teacher compensation from the 1800’s, when a teacher negotiated his or her pay with the local school board to the current ubiquitous single salary schedules that compensate teachers for years of service and educational attainment. Podgursky pointed out that a single pay schedule results in shortages by field. For instance, it is more difficult to recruit high school math teachers than elementary school teachers. In the single salary schedule effective and poor teachers are compensated at the same rate. The author uses data from Houston Independent School District to illustrate that high poverty schools tend to have the teachers with the least experience.

Podgursky then discusses objections to merit pay. The article ends with a summary of current reforms: recruitment incentives or higher starting salaries for hard to fill positions (e.g., special education), bonuses for hard to staff schools, and merit or performance-based pay.

Teacher Performance Pay: A Review

Author(s): Podgursky, Michael J.; Springer, Matthew G.

Source: Nashville: Vanderbilt University, National Center on Performance Incentives October 24, 2006

Publication type: Research review and books

Full text: URL not available

Abstract: This working paper examined the "economic case" for performance-related pay in K-12 education. The first part of the review was a history of compensation models from the grade-based model to the current single-salary schedule, currently ubiquitous in the U.S. educational system. The authors reviewed the theoretical arguments involving performance-related pay (e.g., performance, monitoring, team production) followed by a review of several performance-based programs in Denver, Texas, and Minnesota, as well as programs supported by the Milken Family Foundation, and the U.S. Department of Education's Teacher Incentive Fund. The paper concluded with a review of empirical research on performance-based pay. The authors concluded that the methodologies employed by empirical studies on performance-based pay were extremely diverse. Consequently, they were unable to draw any general conclusions from them. They recommended rigorous program evaluations of programs as they are implemented.

History of Teacher Pay and Incentive Reforms

Author(s): Protsik, Jean

Source: Journal of School Leadership v6 n3 p265–289 Spring 1996

Publication type: In the Spotlight

Full text: URL not available

Abstract: This paper discusses three major changes in the method of teacher pay since the 1800s from an initial rural tradition of paying teachers room and board to a grade-based salary schedule and finally to the single-salary schedule. The two new waves of compensation-reform attempts also are discussed: the 1980s individual merit-pay and career-ladder programs, and the 1990s group-incentive pay plans based on student performance. The author suggests that the structure of teacher compensation has changed through the years to meet changing social and educational needs. For present educational needs, the single-salary schedule as the dominant model of teacher compensation may be ineffective in most circumstances in encouraging continued teacher professional development. The group-based performance pay plans offer one way to focus teacher efforts on producing student learning. While teacher compensation is only one of the many aspects that affects school performance, options do exist that can help improve schools to meet tomorrow's needs.

Recruiting and Retaining Teachers with Alternative Pay

Author(s): Reichardt, R.; Van Buhler, R.

Source: Aurora, CO: Mid-Continent Research for Education and Learning. November 2002, revised February 2003

Publication type: State or regional reports, rigorous research

Full text:

http://www.mcrcel.org/PDF/TeacherPrepRetention/5021RR_RecruitingRetainingTeachers.pdf

Abstract: In this study, the effect of alternative teacher pay systems on teacher recruitment and retention is explored by using the Douglas County (CO) pay-for-performance plan as the subject. The questions this study aims to answer is what effect has the pay-for performance system had on teacher attrition, and how does the teacher quality of teachers in the Douglas County system compare with teachers in other districts with traditional pay structures. The paper introduces alternative pay structures, including merit pay, career ladders, knowledge- and skill-based pay, also providing a detailed account of Douglas County's plan. Relying on datasets from Colorado Department of Education (CDE), the U.S. Department of Education's Common Core of Data (CCD), the U.S. Census Bureau, and the Colorado Department of Labor and Employment, this study uses statistical models to measure the effect of the new pay structure. The results suggest that the new pay plan has helped teacher retention, but has not had the same effect on teacher recruitment.

The Pros and Cons of Performance-Based Compensation

Author(s): Solmon, Lewis C.; Podgursky, Michael

Source: Santa Monica, CA: Milken Family Foundation June 2000

Publication type: Issue paper

Full text: <http://www.mff.org/publications/publications.taf?page=284>

Abstract: This paper focuses on the research behind performance-based compensation for teachers. The purpose is to compile and analyze the current and historical criticisms of the program, along with highlighting the positive research. The researchers concluded that while there are many objections to performance-based compensation systems, including many teachers, research has shown how objections can be fixed in a new system. They also indicate that it is important to continue experimenting with these new programs.

Low Pay, Low Quality

Author(s): Temin, Peter

Source: Education Next v3 Summer 2003

Publication type: Issue paper

Full text: <http://www.hoover.org/publications/ednext/3347281.html>

Abstract: This article dives into the problem of teacher salaries and teacher quality. The existing flaws in the teacher market are the result of the difficulty in identifying high quality teacher candidates, and a change in face of the teacher pool. The increasing opportunities for women in the workforce have taken the high-quality teacher candidate away from the profession, a traditionally attractive profession for women, into more lucrative professional opportunities. The nature of the work teacher do has become increasingly difficult, and a deterring factor for high quality candidates to pursue teaching. Raising teacher salaries to a competitive level will be essential to future education reforms.

Understanding Alternative Teacher Compensation

Author(s): USC California Policy Institute.

Source: Expert insights from USC California Policy Institute's California K-12 School Finance Policy Symposium, June 3, 2005. Research Synthesis: Education v2 2005

Publication type: Research reviews and books, Issue paper

Full text:

http://www.theteachingcommission.org/press/CPI_Education%20Teacher%20Compensation.pdf

Abstract: This paper reviews research on alternative compensation for teachers. This paper is derived from the California K-12 School Finance Policy Symposium and a roundtable discussion on the subject. The research review contended that the current method of compensative teachers, the single-salary schedule, is outmoded and not aligned to the goal of improving student achievement. The research finds that designing and implementing alternative systems is complex, however with careful planning, changes can be effectively made.

School Reform, TURN, and Teacher Compensation

Author(s): Urbanski, Adam; Erskine, Roger

Source: Phi Delta Kappan v81 n5 p367–370 Winter 2000

Publication type: State or Regional Reports

Full text: <http://www.pdkintl.org/kappan/kurb0001.htm>

Abstract: This article discusses the critical roles of the Teacher Union Reform Network (TURN) in school reform and teacher compensation. The authors clarify the goals of TURN, including improving professional development by creating new roles for unions, sharing successful strategies, influencing teacher preparation, and setting standards for unions and for labor and management relations. The authors describe the three TURN subcommittees: professional development, preservice education, and compensation redesign. The authors present an overview of innovations in teacher compensation structure. Two compensation plans are explored: school-based performance award programs and knowledge- and skills-based pay systems. Although innovative compensation systems have been implemented successfully in many districts, some changes continue to face resistance. The authors suggest that labor and management relations and the culture of schools must change in response to current educational conditions. The innovations in teacher compensation that have been brought about in TURN districts serve as examples of how changes can happen with collaborative partnerships.

Comparable Worth

Author(s): Vedder, Richard

Source: Education Next v3 Summer 2003

Publication type: Issue paper

Full text: <http://www.hoover.org/publications/ednext/3347411.html>

Abstract: When taking into account factors such as work year and work day and fringe benefits, teachers are not significantly underpaid. Data that has been dedicated to teacher salaries has failed to take into account that teachers receive more time off, and have more generous benefit packages than comparable professionals. The article examines many factors that accounted for public school teachers being underpaid. Paying teachers based on inputs (years of

experience, education level, etc.) prevents teachers from earning above-market average salaries based on performance. Teachers who specialize in hard to staff areas also cannot earn salaries that reflect their need and value.

Netting an Elusive Breed

Author(s): Warner, M.R.

Source: Education Next v4 Fall 2004

Publication type: Issue paper

Full text: <http://www.hoover.org/publications/ednext/3259436.html>

Abstract: In this article, Virginia Governor Mark Warner explores strategies aimed in recruiting and retaining high-quality teachers. Innovative policies must be developed to help address teacher shortages. Incentive programs, as well as professional development/training programs can all be used to attract and keep performing teachers in the classroom. An example of policies Governor Warner implemented was the Partnership for Achieving Successful Schools (PASS) initiative which provided assistance to low-performing school by dispatching, academic, business, and community resources to these schools.

Pay-for-Performance: Key Questions and Lessons from Five Current Models

Author(s): Wyman, W., & Allen, M.

Source: ECS Issue Paper. Denver: Education Commission of the States June 2001

Publication type: State or regional reports, Policy, Issue paper

Full text: <http://www.ecs.org/clearinghouse/28/30/2830.htm>

Abstract: This report looks at the idea of a teacher pay scale based on performance, which many districts and states are beginning to create and implement. The issue paper looks at five difference pay-for-performance models, detailing the key issues for policymakers to be aware of. The paper also summarizes current models for pay-for-performance and provides references for further information on the programs.

Knowledge- and Skill-Based Pay

How Does Teacher Pay Compare? Methodological Challenges and Answers

Author(s): Allegretto, Sylvia A.; Corcoran, Sean P.; Mishel, Lawrence

Source: Economic Policy Institute, Washington, D.C.

Publication type: Research reviews and books

Full text: URL not available

Abstract: This publication presents information on the debate over teacher pay, evidence of lagging teacher income growth, teacher pay and teacher quality, relative weekly earnings of teachers, as well as the fringe benefit bias. It also includes statistics from national surveys on weekly teacher pay.

Diversifying Teacher Compensation

Author(s): Azordegan, J.; Byrnett, P.; Campbell, K.; Greenman, J.; Coulter, T.

Source: Denver: Education Commission of the States December 2005

Publication type: Issue Paper

Full text: <http://www.ecs.org/clearinghouse/65/83/6583.pdf>

Abstract: This report details state efforts to reform teacher compensation since 1995, including revisiting past pay-for-performance programs. Reform efforts were placed within three frameworks: maintaining current systems while dedicating state funds to bonuses for teachers based on student achievement, teacher incentive programs, and pilot programs completely dedicated to linking pay to student performance. Azordegan discusses Minnesota's 'Quality Compensation' plan as an alternative compensation system.

What it Means to Be a "Highly Qualified Teacher"

Author(s): Berry, Barnett

Source: Teacher Leaders Network, Southeast Center for Teaching Quality p1–4 Fall 2002

Publication type: State or Regional Report

Full text: <http://www.teacherleaders.org/Resources/berryHQT.html>

Abstract: This report clarifies the characteristics of highly qualified teachers in the context of the federal No Child Left Behind Act's definition. The author discusses the inadequacy of the current assessments of new teachers and provides recommendations to improve teaching quality through teacher assessment and compensation. States need to utilize more finely tuned definitions from the field to clarify who is qualified to teach. The federal government should help develop data infrastructures that track teachers' progress on teaching quality measures. Universities need to invest more in assessing their new graduates in meeting the National Council for the Accreditation of Teacher Education's performance requirements. The programs that are preparing teachers for hard-to-staff schools need to be scaled up. Teachers who pass the test of teaching knowledge and performance assessment need to be paid more. School districts and states need to develop new teacher evaluation and relicensing tools that can push more

experienced teachers toward meeting the highly qualified standard of the National Board for Professional Teaching Standards. School districts and universities should use the most accomplished teachers to prepare and support teacher candidates through alternative routes in new teacher induction programs. Finally, teacher pay systems must move to provide salary benefits to its most qualified and accomplished teachers.

Negotiating a Local Pay for Performance Program Encouraged by State Mandate

Author(s): Conley, Sharon C.; Gould, Jewell; Muncey, Donna E.; White, Noel

Source: Journal of Personnel Evaluation in Education v15 n2 p137–148 Summer 2001

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: The article describes the Brevard County's pay-for-performance program, which is a new teacher compensation strategy that incorporated individual and group performance-based pay and knowledge- and skills-based pay. Teachers voluntarily participated in the program by proposing a plan for how they would satisfy the particular requirements in either the student achievement or the professional development categories. Among 1,500 teachers who participated in the program in the first year, the majority chose the option of improving their students' test scores, with many teachers participating in both options and many choosing to work in groups. The authors conducted interviews with union negotiators in Brevard County, Florida, in 1999 as part of a larger study of alternative pay systems in American Federation of Teachers sites. The authors summarized many important features of successful alternative compensation efforts including no loss in pay. The alternative compensation systems should give teachers options for earning additional pay as opposed to providing only one pay choice. Recognition of members' different needs and interests in the plan is also important. Negotiators also should consider balancing compensation awards that are determined externally with locally determined awards. Finally, there must be cooperation and trust between union and management for compensation change to happen.

Linking Teacher Compensation to Teacher Career Development

Author(s): Conley, Sharon; Odden, Allan

Source: Educational Evaluation and Policy Analysis v17 n2 p219–237 Summer 1995

Publication type: In the Spotlight

Full text: URL not available

Abstract: Alternatives to the traditional single-salary schedule of teacher compensation have been proposed to base payment on: (1) evaluations of the performance of individual teachers, (2) teachers' job responsibilities or tasks, and (3) teachers' professional skills and knowledge. This report explored the advantages and disadvantages of these three alternatives. Four examples of skill- and knowledge-based pay systems in education are given, including career ladder programs in three districts (Flowing Wells, Arizona; Charlotte-Mecklenburg, North Carolina; and Pocatello, Idaho) and the Advanced Skills Teacher system in Australia. The authors proposed a model for a career development-based compensation structure composed of three components: starting pay, career stages that qualify teachers for a major pay increase, and a mechanism for

increasing pay separate from knowledge and skill enhancement. Finally, the authors provided strategic considerations to guide the development of an alternative compensation approach. A strategic reevaluation of teacher pay should consider not only basic organizational goals but also school culture, norms, and micropolitical processes. The ideal model would address educators' low compensation and complement collective bargaining, teacher development, and collegiality.

Can Teacher Quality Be Effectively Assessed?

Author(s): Goldhaber, Dan; Anthony, Emily

Source: Center on Reinventing Public Education Spring 2004

Publication type: In the Spotlight

Full text: http://www.crpe.org/workingpapers/pdf/NBPTSquality_report.pdf

Abstract: This working paper reviews the results of the first large-scale study based on a unique data set from North Carolina. This study involved assessing the relationship between teachers who were certified by the National Board for Professional Teaching Standards (NBPTS) and the achievement of the students of these teachers. The authors found that this NBPTS certification program was successful in selecting effective teacher applicants, and the student achievement reflected the effectiveness of their teachers.

Evaluating the Effect of Teacher Degree Level on Educational Performance

Author(s): Goldhaber, Dan D.; Brewer, Dominic J.

Source: Developments in School Finance, William J. Fowler (Ed.) p197–210 1996

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: <http://nces.ed.gov/pubs97/975351.pdf>

Abstract: This piece reports the impact of teacher characteristics on student achievement. Data from the National Educational Longitudinal Study of 1988 were used to estimate models using teacher, class, and school-level variables. Results suggest that school-level variables have little to no influence on student achievement. However, there appears to be some impact on student achievement once teacher-degree information is added to the model. Specifically, there is a significant relationship between teachers who are certified and have a bachelor's or a master's degree in mathematics and student achievement in mathematics. Additionally, those teachers who have a bachelor's degree in science have a positive impact on student achievement in science.

Alternative Teacher Compensation

Author(s): Goorian, Brad

Source: ERIC Digest Number 142, ERIC Clearinghouse on Educational Policy and Management Fall 2000

Publication type: In the Spotlight

Full text: <http://eric.uoregon.edu/pdf/digests/digest142.pdf>

Abstract: This report examines various alternative methods of teacher compensation. The single-salary schedule, which pays individual teachers on the basis of their years of experience and educational units or degrees has been criticized for valuing seat time more than teaching skill. The four main types of alternative compensation systems are discussed: Pay for performance, knowledge- and skills-based pay systems, school-based performance award programs, and compensation for certification with the National Board for Professional Teaching Standards. Cincinnati is the first big-city public school district to replace the traditional salary structures with compensation based on evaluations of teachers grouped into five career categories ranging from “apprentice” to “accomplished,” with specific goals and standards attached to each. Denver’s pilot program offers three different pay-for-performance plans. The performance is evaluated from standardized test scores, achievement on teacher-made assessments, and acquisition of new knowledge and skills. Douglas County, Colorado, used multifaceted, comprehensive compensation plans that combine pay-for-performance plans and knowledge- and skills-based plans. The author suggests many resources for guidance in teacher compensation, including the Consortium for Policy Research in Education’s Teacher Compensation Project; a Milken Family Foundation report; and publications by the American Federation of Teachers, the National Commission on Teaching and America’s Future, and Education Week.

Standards-Based Teacher Evaluation as a Foundation for Knowledge- and Skill-Based Pay

Author(s): Heneman, Herbert G., III; Milanowski, Anthony T.; Kimball, S.; Odden, Allan R.

Source: CPRE Policy Briefs, RB-45 May 2006

Publication type: Issue Paper

Full text: <http://www.cpre.org/Publications/RB45.pdf>

Abstract: This policy brief focuses on accountability systems for knowledge- and skill-based teacher pay. The report reviews previous research done on current programs in various states. The researchers found positive relationships between teacher evaluation scores and student achievement, though the relationship varied across sites. They also assessed the effects on teaching practice, which was shown to be positive with the new compensation systems. The report concludes with a discussion of policy implications and guidelines for future compensation reforms.

Reinventing Teacher Compensation Systems

Author(s): Kelley, Carolyn; Odden, Allan

Source: Consortium for Policy Research in Education (Finance Brief), Fall 1995

Publication type: In the Spotlight

Full text: <http://www.ed.gov/pubs/CPRE/fb6/index.html>

Abstract: This report provides a history of changes in teacher compensation during the last century and a discussion of key organizational and educational changes that could be reinforced by a new teacher compensation structure. The discussion builds upon the context of changes in the society and in education systems. Three types of new compensation systems are described: skills- or competency-based pay, pay-at-risk, and group-based performance awards. The authors also provide examples of implemented innovative compensation programs, including the

Kentucky Instructional Results Information System, the South Carolina School Incentive Reward Program, the Douglas County, Colorado, pay plan, and school-based rewards in Dallas. The authors identify 10 key process principles for a successful compensation system: (1) involvement of all key parties; (2) broad agreement on the most valued educational results; (3) sound, comprehensive evaluation systems; (4) adequate funding; (5) investments in ongoing professional development; (6) avoidance of quotas; (7) good working conditions; (8) management maturity; (9) labor maturity; and (10) persistence. Technical principles of each innovative compensation system were suggested.

Compensation and Skill Development in Four Professions and Implications for the Teaching Profession

Author(s): Kelley, Carolyn; Taylor, Corri

Source: Consortium for Policy Research in Education, Winter 1995

Publication type: In the Spotlight

Full text: URL not available

Abstract: This paper examines the compensation systems in four complex, knowledge-based professional settings: law firms, research universities, actuarial science departments, and financial companies. Lessons from these four models provided suggestions for possible modifications to the current teacher compensation system. In various ways, the compensation programs in these professions link pay to the development of knowledge and skills for the pursuit of organizational goals. Based on the understanding of the compensation systems in these four professions, the authors pointed out two important implications for the development of a teacher compensation system. First, the teaching profession could benefit from a compensation and career development system designed with elements of skill-based pay. Second, teacher knowledge and skills should be identified and assessed both internally and externally by members of the teaching profession.

How Vaughn Next Century Learning Center Developed a Knowledge- and Skill-Pay Program

Author(s): Kellor, Eileen; Milanowski, Anthony T.; Odden, Allan R.

Source: Madison, WI: Consortium for Policy Research in Education 2000

Publication type: State or Regional reports

Full text: <http://wcer.wisc.edu/cpre/papers/pdf/Vaughn%20KSB%203-00.pdf>

Abstract: This article details the pay for performance programs implemented in the Vaughan Next Century Learning Center. The system was to be competency-based, promoting increasing student achievement as well as teacher retention. This smaller-scale pilot ultimately led to redesigning the compensation for all new teachers, and aligned itself with the goals of Vaughan.

The Implementation and Early Findings from a Professional Development and Performance Based Teacher Compensation System

Author(s): Mathis, William J.

Source: Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA Spring 2002

Publication type: State or Regional Reports

Full text: URL not available

Abstract: This paper described the process used at the Rutland Northeast school district in Vermont in developing a new teacher compensation system that links teacher compensation to school and district goals instead of student achievement test scores. Under the new system, teachers present a professional portfolio, which mirrors the state's relicensing criteria, to a committee made up of board members, administrators, and peers. This portfolio contains annual professional-growth plans, annual summative evaluations, and evidence of meeting the state standards. Requirements may be met by a combination of courses, workshops, mentoring, public engagements, or any other appropriate academic activity. They avoid direct links of achievement test scores to teacher pay. They also emphasize a plan for a smooth transition from an old to a new system. The author summarizes six factors leading to the successful program adoption, including: (1) all teachers can participate, (2) professional development is broadly defined, (3) group activities are counted, (4) sufficient development and implementation time is provided, (5) the boards and teachers have leadership maturity, and (6) the plan progresses with recognition of local culture and synergy. The author reports preliminary findings from the implementation of the program in the first two years. The transition to the new compensation system has been smooth because of the consistency of the committees and the mature leadership of school board members, administrators, and teachers.

The Varieties of Knowledge and Skill-based Pay Design: A Comparison of Seven New Pay Systems for K-12 Teachers

Author(s): Milanowski, Anthony

Source: Education Policy Analysis Archives v11 n4 January 29, 2003

Publication type: Research reviews and books, Policy

Full text: URL not available

Abstract: This article described qualitative research on seven "pioneer" knowledge and skills-based pay programs. A theory of action, which linked teacher motivation, type of incentives, and other factors to student achievement, guided the study. First, the author discussed the advantages of knowledge and skills-based pay programs. Second, he developed seven dimensions to structure the analysis and comparison of the programs, including motivation for program development, the design process, types and structures of reward, assessment of skills acquisition, size and structure of knowledge and skills incentives, alignment of other human resource programs, and cost and funding. Third, case study site visits of six school districts and one-charter school informed and supported the analysis a cross-site analysis. The results showed that although the districts had different reasons for implementing the skills-based pay systems, the author identified several lessons learned: (1) the programs retained seniority and degrees as factors for pay increases, (2) teachers' associations did not summarily dismiss changes in the pay structure, (3) the use of pre-existing standards will facilitate adoption of a new pay system, and (4) the transition to a knowledge and skills-based pay system can be low-cost.

School-based Performance Award Programs and Teacher Motivation

Author(s): Milanowski, Anthony

Source: Journal of Education Finance v25 n4 p517-544 Spring 2000

Publication type: Scientific Research

Full text: URL not available

Abstract: This article summarized the results of a qualitative study that examined school-based performance award programs in North Carolina, Kentucky, and Maryland. Expectancy theory guided the design of the study and the interpretation of the results. The NC and KY programs rewarded teachers and the program in Maryland put funds into an account for programs. The results showed that the bonus was as desirable as the intrinsic rewards of teaching (e.g., personal satisfaction from a student's achievement). Teachers did not believe that the bonuses would be awarded (because a previous one had not been given) and that the amount was too small. The teachers also reported increased stress trying to meet performance goals. Additionally, a proportion of the teachers did not believe that the performance goals could be met. The author also examined the effectiveness of sanctions (e.g., loss of pride or loss of job security) on teacher motivation, and found that in Kentucky loss of pride was more of a motivating factor than loss of job security. (The teachers in Maryland were unaware of the program had little knowledge of the program.) The article concluded with recommendations for school-based performance awards: (1) provide support to increase teacher's expectancy, (2) make a strong connection between rewards and school performance, (3) the size of the award needs to be large enough to matter, (4) principals need to provide active support for the program, and (5) design the program in a way that teachers perceive as fair.

Performance Pay System Preferences of Students Preparing to Be Teachers

Author(s): Milanowski, Anthony

Source: WCER Working Paper No. 2006-8. Madison, WI: University of Wisconsin-Madison, Consortium for Policy Research in Education October 2006

Publication type: Scientific Research, Policy, Issue Paper

Full text:

http://www.wcer.wisc.edu/publications/workingPapers/Working_Paper_No_2006_08.pdf

Abstract: This paper presents the result of a study designed to answer three questions: (1) Do college students preparing to be K-12 teachers view pay for performance as a desirable or undesirable attribute of a teaching job? (2) Do the students prefer some forms of pay for performance (e.g., knowledge- and skills-based pay, group-based performance pay, or individual performance pay based on objective indicators, such as student achievement) over others? and (3) Do students' work values and personality characteristics influence their preferences for performance pay or for different performance pay systems? The author conducted focus groups about pay for performance with college students (education majors, pre-education majors and their equivalents in other fields), and a survey with education or pre-education as their major. During the focus groups, the students expressed interest in pay for performance but recognized the issues with measuring performance. The results of the survey showed that students preferred pay for individual performance and pay for increases in knowledge and skills about equally, and these ratings were higher than those for increases in pay based on group performance or pay

increases not based on performance at all. Finally, personality and work values had a weak association with respondents' pay system preferences.

Teacher Knowledge and Skill Assessments and Teacher Compensation: An Overview of Measurement and Linkage Issues

Author(s): Milanowski, Anthony; Odden, Allan; Youngs, Peter

Source: Journal of Personnel Evaluation in Education v12 n2 p83–101 Summer 1998

Publication type: National Reports, In the Spotlight

Full text: URL not available

Abstract: A pay system based on knowledge and skills in teaching would involve not only a more detailed, practice-oriented specification of teacher knowledge and skills but also an assessment system to determine whether these components are present. New measures of teacher skills, based on conceptions of professional practice consistent with the requirements of standards-based reform, have been developed at the national level. They include assessments of beginning teachers developed by the Interstate New Teacher Assessment and Support Consortium, the PRAXIS III assessment developed by ETS, and assessments for the certification of experienced teachers developed by the National Board for Professional Teaching Standards. This article discusses the measurement quality of these assessments and their linkage to teacher compensation system. Important measurement issues addressed include criterion-related validity, content validity, and reliability and consistency. More information is needed for valid measurement quality of these assessments. The authors point out many unresolved issues of these measures, including generalizability, interrater agreement, adverse impact, and consequential validity. The authors also suggest a way to combine national and local standards and assessments with locally developed definitions and assessments of skills to form a coherent knowledge- and skills-based pay system.

Aligning Teacher Compensation With Systemic School Reform: Skill-Based Pay and Group-Based Performance Awards

Author(s): Mohrman, Allan M.; Mohrman, Susan A.; Odden, Allan R.

Source: Educational Evaluation and Policy Analysis v18 n1 p51–71 Spring 1996

Publication type: In the Spotlight

Full text: URL not available

Abstract: The educational reform strategy requires that teachers develop a new array of professional knowledge and skills. It also requires a change in the organization and management of schools to focus on performance. This article describes a potential compensation structure that is consistent with these changes. Drawing on recent organization and compensation theory and practice, the authors emphasize the importance of matching pay practices to the strategic needs of the organizations. Core notions of skill-based pay in education are that knowledge and skills needed by the organization would be described explicitly, and individuals would be assessed against objective standards to determine whether they had and could use the skills. Skill-based pay is particularly appropriate in settings in which we want to motivate people to acquire new skills so they can contribute more flexibly and broadly to the school's purpose. The authors discuss three types of skills: depth, breadth, and vertical. The authors suggested a number of

steps to follow in creating a skills-based pay system. The article shows how various components in the compensation system work and outlines several ways each component could be incorporated into a revised compensation system.

Cincinnati's New Approach to Teacher Compensation

Author(s): Odden, Allan

Source: School Business Affairs v68 n5 p20–23 Spring 2002

Publication type: State or Regional Reports

Full text: URL not available

Abstract: This article describes the Cincinnati public school district's efforts in restructuring its teacher compensation system from a traditional single-salary schedule to a performance-based payment system, which uses both a knowledge- and skills-based salary structure and school-based performance award. The three major steps in making this change are: (1) developing acceptable teaching standards, which then were organized into four domains: planning and preparing for student learning, creating a learning environment, teaching for learning, and professionalism; (2) restructuring of teacher evaluation system; and (3) creating a new salary schedule that includes five categories of teachers: apprentice, novice, career, advanced, and accomplished. The author also summarizes findings from the pilot implementation of this new teacher compensation system in 10 schools during 1999–2000 school year.

New and Better Forms of Teacher Compensation Are Possible

Author(s): Odden, Allan

Source: Phi Delta Kappan v81 n5 p361–366 Winter 2000

Publication type: In the Spotlight

Full text: URL not available

Abstract: The author proposed a change in the way teachers are paid to simultaneously enhance teaching and reinforce the goals and strategies of standards-based education reform. The author discusses the reasons for the past failure in changing the teacher compensation structure. The creation of the National Board for Professional Teaching Standards and many private sectors that work on knowledge- and skills-based pay has made the change in teacher compensation structure more viable. The reports from the National Commission on Teaching and America's Future and the Consortium for Policy Research in Education regarding teaching salary structure also have helped pave the way for workable changes in teacher compensation. Many states, districts, and teacher unions already are moving forward to change the pay structures. The author discusses three different sets of tools for knowledge and skills assessment: for beginning teachers, midcareer teachers, and experienced teachers. The author offers an example of how the tools could be crafted into a new teacher salary schedule. Finally, the author discusses how the performance-based pay would affect teachers and schools.

Incentives, School Organization, and Teacher Compensation

Author(s): Odden, Allan

Source: Consortium for Policy Research in Education Winter 1995

Publication type: In the Spotlight

Full text: URL not available

Abstract: In order for compensation to serve as a reinforcement for organizational goals, the norms of the compensation structure must be aligned with the norms of the school organization. This report reviews the history of teacher compensation structure. The author also discusses exemplary cases of teacher compensation-system reform. Drawing from the lessons learned from the past, the author concludes that the school organization, incentives, and teacher compensation should be closely linked. The incentives imbedded in the compensation system function best when aligned with the broader goals of the organization and directly reinforce them. Teacher compensation should change from the traditional single-salary schedule to a salary schedule that provides increments based on direct professional measures of teacher knowledge and skills, and which also includes performance awards for teams and schools. Developing, designing, implementing, and funding such new compensation strategies raise many technical, financial, and political issues, all of which need additional research.

How Cincinnati Developed a Knowledge- and Skills-Based Salary Schedule

Author(s): Odden, Allan R.; Kellor, Eileen

Source: Madison, WI: Consortium for Policy Research in Education 2000

Publication type: State or regional report, Issue paper

Full text: <http://www.wcer.wisc.edu/cpre/papers/pdf/Cincinnati%20KSBP%203-00.pdf>

Abstract: This report details the development of knowledge- and skill-based pay system in Cincinnati Public Schools. The new pay system resulted from collaborative effort between the school districts and local teacher union that occurred in step with changes to the districts teacher evaluation and professional development systems. The report examines process of the design of all three systems, as well as the new teaching standards that resulted, and the linkages of the new evaluation system to teacher pay.

Enhancing Teacher Quality Through Knowledge- and Skills-Based Pay

Author(s): Odden, Allan; Kelley, Carolyn; Heneman, Herbert; Milanowski, Anthony

Source: Consortium for Policy Research in Education (Policy Brief) November 2001

Publication type: In the Spotlight

Full text: <http://www.cpre.org/Publications/rb34.pdf>

Abstract: Knowledge- and skills-based pay systems are emerging as a potentially promising way of leveraging the investment in teacher pay to improve teacher quality and to provide clearer signals to teachers about how they should focus their professional energies. This report discussed key issues in designing knowledge- and skills-based pay systems, including deciding to supplement, modify, or replace the traditional pay schedule; deciding on what knowledge and skills to reward; methods of knowledge and skills assessment; types and amount of pay incentives; the role of teacher association and collective bargaining; and costs of knowledge- and skills-based pay programs. The authors summarize 11 key lessons learned from implementing

knowledge- and skills-based pay systems. Finally, they recommend the policy implementations for state policymakers.

Experimenting with Teacher Compensation

Author(s): Odden, Allan; Wallace, Marc

Source: The School Administrator October 2004

Publication type: Policy, Issue Paper

Full text: <http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=1128>

Abstract: This issue paper argues that the primary sources of teacher salary data—annual reports from two teacher unions—do not provide a comprehensive picture of teacher compensation. The authors suggest that the National Center for Education Statistics and the Bureau of Labor Statistics partner to present more thorough data on teacher pay, including fringe benefits, to inform policymakers, and state and district level decision makers. The authors summarize a series of issues around teacher salaries and offer an alternative analysis of teacher compensation. The authors address how components of the teacher salary and benefits system can impact the overall analysis of teacher compensation, including: (1) shorter work days and work years for teachers (nine- or 10-month school years) versus full-year employees; (2) teachers' starting salaries as compared to other beginning professionals; (3) fringe, or other nonsalary benefits, such as health insurance and retirement plans; and (4) trends within a state's salary schedule, including raises.

Better Salaries for Teachers in Texas Public Schools

Author(s): Patterson, C.; Story, J.

Source: Texas Public Policy Foundation 2005

Publication type: Research review and books, Policy, Issue paper

Full text: <http://www.texaspolicy.com/pdf/2005-11-teacherpay-rr.pdf>

Abstract: This article takes a look at teacher salaries in Texas, exploring them by not solely comparing them to the national average. It is argued that comparing teacher salaries to the national average does not account for the economic condition of the state. In 2005 Texas teachers were paid on average \$6,100 less than the national average. However, citing a 1991 SREB report found that included cost of living adjustments in it, Texas teachers were earned a comparable salary to the national average. This article also explores the idea of looking at teacher pay by comparing salaries to similar professions. Patterson goes on to examine teacher salaries by exploring different market conditions. In order to determine what is the 'Right Pay' for teachers, these types of market considerations must be taken into account.

Fringe Benefits

Author(s): Podgursky, Michael

Source: Education Next v3 Summer 2003

Publication type: In the Spotlight, Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3347981.html>

Abstract: In a review of alternative teacher compensation models that have been used in school districts around the country, the authors present the prevalent approaches, and highlight the implementation in selected districts. Based on the premise that teachers can be the most important factor in positively impacting student achievement, states and school districts are introducing new measures to attract and reward high-quality teachers. These strategies include market-based salary incentives for certain populations of teachers, and pay-for-performance structures that reward both improved teacher performance and increased student achievement. The article highlights alternative compensation approaches adopted by schools and districts around the country and summarizes the outcomes.

Recruiting and Retaining Teachers with Alternative Pay

Author(s): Reichardt, R.; Van Buhler, R.

Source: Aurora, CO: Mid-Continent Research for Education and Learning. November 2002, revised February 2003

Publication type: State or regional reports, rigorous research

Full text:

http://www.mcrcel.org/PDF/TeacherPrepRetention/5021RR_RecruitingRetainingTeachers.pdf

Abstract: In this study, the effect of alternative teacher pay systems on teacher recruitment and retention is explored by using the Douglas County (CO) pay-for-performance plan as the subject. The questions this study aims to answer is what effect has the pay-for performance system had on teacher attrition, and how does the teacher quality of teachers in the Douglas County system compare with teachers in other districts with traditional pay structures. The paper introduces alternative pay structures, including merit pay, career ladders, knowledge- and skill-based pay, also providing a detailed account of Douglas County's plan. Relying on datasets from Colorado Department of Education (CDE), the U.S. Department of Education's Common Core of Data (CCD), the U.S. Census Bureau, and the Colorado Department of Labor and Employment, this study uses statistical models to measure the effect of the new pay structure. The results suggest that the new pay plan has helped teacher retention, but has not had the same effect on teacher recruitment.

Staff Development Policy: Fuzzy Choices in an Imperfect Market

Author(s): Stout, Robert T.

Source: Education Policy Analysis Archives v4 n2 February 17, 1996

Publication type: Issue Paper, Policy

Full text: <http://epaa.asu.edu/epaa/v4n2.html>

Abstract: This article discusses the lack of existence of staff development policy, and how that has caused staff development to be ineffective in delivering increases to school quality. Stout examines policy alternatives that he believes will help improve staff development and improve school quality. Finally Stout discusses the need to view improving staff development as an investment, and creating a system that allows for returns on that investment, improving the quality of staff development experiences.

Understanding Alternative Teacher Compensation

Author(s): USC California Policy Institute.

Source: Expert insights from USC California Policy Institute's California K-12 School Finance Policy Symposium, June 3, 2005. Research Synthesis: Education v2 2005

Publication type: Research reviews and books, Issue paper

Full text:

http://www.theteachingcommission.org/press/CPI_Education%20Teacher%20Compensation.pdf

Abstract: This paper reviews research on alternative compensation for teachers. This paper is derived from the California K-12 School Finance Policy Symposium and a roundtable discussion on the subject. The research review contended that the current method of compensative teachers, the single-salary schedule, is outmoded and not aligned to the goal of improving student achievement. The research finds that designing and implementing alternative systems is complex, however with careful planning, changes can be effectively made.

School Reform, TURN, and Teacher Compensation

Author(s): Urbanski, Adam; Erskine, Roger

Source: Phi Delta Kappan v81 n5 p367–370 Winter 2000

Publication type: State or Regional Reports

Full text: <http://www.pdkintl.org/kappan/kurb0001.htm>

Abstract: This article discusses the critical roles of the Teacher Union Reform Network (TURN) in school reform and teacher compensation. The authors clarify the goals of TURN, including improving professional development by creating new roles for unions, sharing successful strategies, influencing teacher preparation, and setting standards for unions and for labor and management relations. The authors describe the three TURN subcommittees: professional development, preservice education, and compensation redesign. The authors present an overview of innovations in teacher compensation structure. Two compensation plans are explored: school-based performance award programs and knowledge- and skills-based pay systems. Although innovative compensation systems have been implemented successfully in many districts, some changes continue to face resistance. The authors suggest that labor and management relations and the culture of schools must change in response to current educational conditions. The innovations in teacher compensation that have been brought about in TURN districts serve as examples of how changes can happen with collaborative partnerships.

Incentives

Who Will Teach? Policies That Matter

Author(s): Murnane, Richard J.; Singer, Judith D.; Willett, John B.; Kemple, James J.; Olsen, Randall J.

Source: Cambridge, MA: Harvard University Press 1991

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This book used survey research and comparative population analysis to track more than 30,000 teachers from Michigan and more than 50,000 teachers from North Carolina, and described how prospective, current, and former teachers respond to incentives. The study found that current licensure requirements may stifle innovation in training and prevent potential applicants from entering the profession. The authors made several recommendations for incentives that states and school districts can use to recruit teachers into the profession.

The Quest for Quality: Recruiting and Retaining Teachers in Philadelphia

Author(s): Neild, Ruth Curranl; Useem, Elizabeth; Farley, Elizabeth

Source: Research for Action 2005

Publication type: Scientific Research, State or Regional Reports

Full text: <http://www.researchforaction.org/PSR/PublishedWorks/QuestforQuality.pdf>

Abstract: This study draws on district personnel data, teacher surveys, interviews, focus groups, and observations to describe and evaluate Philadelphia's efforts to recruit and retain teachers as well as other teacher-related issues. About 40 percent of teachers who entered the district in 1999 remained four years later, with lower retention in middle schools and high-poverty schools; however, high-poverty elementary schools had higher retention. There is evidence that teachers who entered in 2003 have higher retention rates, which may be due to the district's new induction program. Retention in schools managed by external providers (e.g., Edison) dropped after schools were taken over and has increased in the second year after takeover. That said, retention after two years in externally managed schools has not returned to pretakeover levels. Recruitment efforts appear to have increased applications by 44 percent, with one third of new teachers reporting that financial incentives were important to their applying to the district and more than 500 applicants coming through alternative preparation programs. Current expanded induction efforts and future plans to implement a new teacher contract and hiring process are described. Continuing challenges to recruitment and retention include working conditions, continued use of underprepared teachers in special education, implementation of No Child Left Behind highly qualified requirements, many new teachers stating the intention to teach for only a few years, and the cost of recruitment and retention efforts.

Incentives, School Organization, and Teacher Compensation

Author(s): Odden, Allan

Source: Consortium for Policy Research in Education Winter 1995

Publication type: In the Spotlight

Full text: URL not available

Abstract: In order for compensation to serve as a reinforcement for organizational goals, the norms of the compensation structure must be aligned with the norms of the school organization. This report reviews the history of teacher compensation structure. The author also discusses exemplary cases of teacher compensation-system reform. Drawing from the lessons learned from the past, the author concludes that the school organization, incentives, and teacher compensation should be closely linked. The incentives imbedded in the compensation system function best when aligned with the broader goals of the organization and directly reinforce them. Teacher compensation should change from the traditional single-salary schedule to a salary schedule that provides increments based on direct professional measures of teacher knowledge and skills, and which also includes performance awards for teams and schools. Developing, designing, implementing, and funding such new compensation strategies raise many technical, financial, and political issues, all of which need additional research.

Teacher Incentives in Rural Schools

Author(s): Reed, Daisy F.; Busby, Doris W.

Source: Research in Rural Education v3 n2 p69–73 1985

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study gathered data on the incentives being offered to teachers in rural schools. Survey data were collected from 67 rural districts in Virginia. The study found that nearly all of the rural districts offered fringe benefits, most offered competitive starting salaries, and about half offered assistance with finding housing. Other incentives offered by most districts included tuition for courses, money for instructional materials, and release time for special activities. Few of the districts offered rewards for superior teachers.

Signing Bonuses

Author(s): Zirkel, Perry A.

Source: Phi Delta Kappan v85 n2 p171–173 Fall 2003

Publication type: National Reports

Full text: URL not available

Abstract: This article provides legal advice on the use of signing bonuses by districts. The author advises districts to determine whether their state has a collective bargaining law that mandates bargaining in the case of signing bonuses. If it does, they must negotiate the issue of bonuses into an agreement. If not, districts may be able to use bonuses as a tool to recruit teachers.

Market-Based Pay

Incentives for Teaching in Hard-to-Staff Subjects

How Does Teacher Pay Compare? Methodological Challenges and Answers

Author(s): Allegretto, Sylvia A.; Corcoran, Sean P.; Mishel, Lawrence

Source: Economic Policy Institute, Washington, D.C.

Publication type: Research reviews and books

Full text: URL not available

Abstract: This publication presents information on the debate over teacher pay, evidence of lagging teacher income growth, teacher pay and teacher quality, relative weekly earnings of teachers, as well as the fringe benefit bias. It also includes statistics from national surveys on weekly teacher pay.

Factors Which Deter Potential Science/Math Teachers from Teaching: Changes Necessary to Ameliorate Their Concerns

Author(s): Evans, Robert H.

Source: Journal of Research in Science Teaching v24 n1 pp77–85 1987

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study used survey data from 98 freshmen at a medium sized engineering university in the Midwest to examine the reasons why potential teachers decide not to pursue teaching careers. Students cited low salaries as the primary reason for not entering teaching. Students identified as “teaching-oriented” listed not wanting to do the things that teachers do every day and a lack of job security as the second and third most important discouraging factors, while students who were not teaching-oriented identified poor job availability and not wanting to do the things that teachers do everyday as second and third most important. Students reported that the average beginning salary teachers would need to make for them to consider teaching was \$21,692; students desired a teacher salary after 10 years of \$24,700 to consider teaching. Students perceived teaching to involve a great deal of monotonous tasks such as teaching the same thing over and over again. Students reported that friends and relatives often discouraged them from entering teaching.

What Different Benchmarks Suggest About How Financially Attractive it Is to Teach in Public Schools

Author(s): Goldhaber, Dan; Player, Daniel

Source: Journal of Education Finance v30 n3 p211–230 Winter 2005

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This article uses multiple national data sets on occupations and salaries to compare teaching salaries to those in other occupations. Generally inflation-adjusted average teaching salaries increased in the 1960s, fell during the '70s, increased in the '80s, and remained flat in the '90s. Starting teaching salaries remain lower than other occupations; however, differences have shrunk since the early '80s. When looking at differences in salaries between teaching and competing occupations, high-skill teachers and secondary teachers have more high-paying opportunities outside of teaching than low-skill or elementary teachers. The authors argue that, because of these competing opportunities, districts using single-salary schedules will have trouble recruiting or will have to settle for lower skill levels for those teachers in high demand in the overall labor market. The authors recommend that districts explore different salary systems to address the labor-market reality that people with different skills have different opportunities for higher salaries outside of teaching.

Science Teachers Who Left: A Survey Report

Author(s): Hounshell, Paul B.; Griffin, Sandra S.

Source: Science Education v73 n4 p433–43 1989

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study surveyed graduates of a single university teacher education program in science over a six-year period to determine employment status and possible reasons for choosing not to teach. Of the 77 respondents, 52 percent were still teaching when surveyed. Among those not teaching, about a third had never taught and the others had taught for some period and then left teaching. Among those who had left the teaching profession, concerns about low salaries; slow advancement; and lack of prestige, respect and professional work settings were the most commonly cited reasons for deciding not to teach.

Teachers' Academic Preparation and Commitment to Teach Math and Science

Author(s): LaTurner, R. Jason

Source: Teaching and Teacher Education v18 n6 p653–663 Summer 2002

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: URL not available

Abstract: This study uses data from a national survey of college graduates and an associated follow-up to examine the relationship between preparation for teaching secondary mathematics and science and commitment to teaching. Four different paths are examined based on whether a person has more or fewer than 18 subject-related semester hours and whether they are certified. Those who are certified appear most committed to teaching while those who have 18 or more hours but are not certified are least committed to teaching. Recommendations include increased salaries to increase retention of those with 18 or more hours of subject-matter training and additional training for those without 18 hours of subject-matter training who also appear to be committed to teaching.

Quantity Over Quality

Author(s): Lakdawalla, Darius

Source: Education Next v3 Summer 2002

Publication type: Issue paper

Full Text: <http://www.hoover.org/publications/ednext/3365326.html>

Abstract: This brief article looks at declining quality of teachers, reduction in class size, and the increase in the per pupil spending, and traces that decline to the increase in demand for high quality employee outside of education. Lakdawalla argues that while the quality of teachers is declining, the impact on students cannot be directly linked to that decline. Changing market conditions lead to the redistribution of educational inputs within a system to possibly offset the decline.

Solving the Shortage of Mathematics and Science Teachers

Author(s): Levin, Henry M.

Source: Educational Evaluation and Policy Analysis v7 n4 p371–82 1985

Publication type: In the Spotlight

Full text: URL not available

Abstract: This paper describes the history of shortages of mathematics and science teachers in secondary schools and offers possible explanations and solutions. According to previous studies, shortages of mathematics and science teachers have continued at varying degrees since the 1940s. The article argues that the causes of shortages can be found in salary schedules that fail to offer competitive salaries, particularly for qualified mathematics and science personnel. An examination of starting salaries in teaching compared to starting salaries in business and industry shows that disparities in mathematics and science were much larger than in the humanities or social sciences. Policy recommendations include careful reviews of salary schedules and special salary increments for mathematics and science teachers as needed.

An Exploration of the Pay Levels Needed to Attract Students With Mathematics, Science, and Technology Skills to a Career in K–12 Teaching

Author(s): Milanowski, Anthony T.

Source: Education Policy Analysis Archives v11 n50 Winter 2003

Publication type: Scientific Research, State or Regional Reports

Full text: <http://epaa.asu.edu/epaa/v11n50/>

Abstract: This exploratory study uses focus groups and surveys of university students with science and technology majors to investigate salary levels needed to induce them to become teachers and what factors other than salary effect their choosing not to teach. While salary was an important factor raised in focus groups, other factors, including ability to work with others and commitment to science careers, were also reasons people would not switch careers to teaching. The survey results suggest that each \$1,000 increase in salary increases the number of mathematics and science students that would consider teaching by 3.4 percent. Tobit regression

analysis found salary in expected career as the primary statistically significant predictor of salary needed to induce a person to switch careers to teaching. Other variables in the analysis include personality traits, grade-point average, and demographic background. Recommendations include raising teacher salaries by 25 percent or more to attract science and technology majors to teaching, targeting recruitment efforts on majors that intend to go into relatively lower paying science and technology jobs, and designing recruitment efforts with an understanding that not all science and technology majors are interested in teaching regardless of the salary paid.

Experimenting with Teacher Compensation

Author(s): Odden, Allan; Wallace, Marc

Source: The School Administrator October 2004

Publication type: Policy, Issue Paper

Full text: <http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=1128>

Abstract: This issue paper argues that the primary sources of teacher salary data—annual reports from two teacher unions—do not provide a comprehensive picture of teacher compensation. The authors suggest that the National Center for Education Statistics and the Bureau of Labor Statistics partner to present more thorough data on teacher pay, including fringe benefits, to inform policymakers, and state and district level decision makers. The authors summarize a series of issues around teacher salaries and offer an alternative analysis of teacher compensation. The authors address how components of the teacher salary and benefits system can impact the overall analysis of teacher compensation, including: (1) shorter work days and work years for teachers (nine- or 10-month school years) versus full-year employees; (2) teachers' starting salaries as compared to other beginning professionals; (3) fringe, or other nonsalary benefits, such as health insurance and retirement plans; and (4) trends within a state's salary schedule, including raises.

Better Salaries for Teachers in Texas Public Schools

Author(s): Patterson, C.; Story, J.

Source: Texas Public Policy Foundation 2005

Publication type: Research review and books, Policy, Issue paper

Full text: <http://www.texaspolicy.com/pdf/2005-11-teacherpay-rr.pdf>

Abstract: This article takes a look at teacher salaries in Texas, exploring them by not solely comparing them to the national average. It is argued that comparing teacher salaries to the national average does not account for the economic condition of the state. In 2005 Texas teachers were paid on average \$6,100 less than the national average. However, citing a 1991 SREB report found that included cost of living adjustments in it, Texas teachers were earned a comparable salary to the national average. This article also explores the idea of looking at teacher pay by comparing salaries to similar professions. Patterson goes on to examine teacher salaries by exploring different market conditions. In order to determine what is the 'Right Pay' for teachers, these types of market considerations must be taken into account.

Job Satisfaction among America's Teachers: Effects of Workplace Conditions, Background Characteristics, and Teacher Compensation

Author(s): Perie, M.; Baker, D.P.

Source: Statistical Analysis Report NCES 97-471. Washington, DC: National Center for Education Statistics 1997

Publication type: National reports

Full text: <http://nces.ed.gov/pubs97/97471.pdf>

Abstract: This national report from the National Center for Education Statistics explores satisfaction with teaching as a profession by looking at indicators associated with satisfaction, including salary, school characteristics, and teacher background. The 1993-1994 Schools and Staffing Survey (SASS) was the source of data for this study. The results from this study are presented using descriptive statistics and regression analysis, and suggest that student behavior, administrative support and teacher autonomy are working conditions that are important in teacher satisfaction. Teachers with fewer years of experience often experience more satisfaction than more experienced teachers, although teaching experience was not considered to be as significant an indicator of satisfaction as working conditions. The report discusses these and it many other details in depth.

The Single Salary Schedule for Teachers in K-12 Public Schools

Author(s): Podgursky, Michael

Source: Center for Reform of School Systems 2002

Publication type: In the Spotlight, Policy, Issue Paper

Full text: URL not available

Abstract: This paper begins with an historical background of teacher compensation from the 1800's, when a teacher negotiated his or her pay with the local school board to the current ubiquitous single salary schedules that compensate teachers for years of service and educational attainment. Podgursky pointed out that a single pay schedule results in shortages by field. For instance, it is more difficult to recruit high school math teachers than elementary school teachers. In the single salary schedule effective and poor teachers are compensated at the same rate. The author uses data from Houston Independent School District to illustrate that high poverty schools tend to have the teachers with the least experience.

Podgursky then discusses objections to merit pay. The article ends with a summary of current reforms: recruitment incentives or higher starting salaries for hard to fill positions (e.g., special education), bonuses for hard to staff schools, and merit or performance-based pay.

Teacher Performance Pay: A Review

Author(s): Podgursky, Michael J.; Springer, Matthew G.

Source: Nashville: Vanderbilt University, National Center on Performance Incentives October 24, 2006

Publication type: Research review and books

Full text: URL not available

Abstract: This working paper examined the "economic case" for performance-related pay in K-12 education. The first part of the review was a history of compensation models from the grade-based model to the current single-salary schedule, currently ubiquitous in the U.S. educational system. The authors reviewed the theoretical arguments involving performance-related pay (e.g., performance, monitoring, team production) followed by a review of several performance-based programs in Denver, Texas, and Minnesota, as well as programs supported by the Milken Family Foundation, and the U.S. Department of Education's Teacher Incentive Fund. The paper concluded with a review of empirical research on performance-based pay. The authors concluded that the methodologies employed by empirical studies on performance-based pay were extremely diverse. Consequently, they were unable to draw any general conclusions from them. They recommended rigorous program evaluations of programs as they are implemented.

The Academic Quality of Public School Teachers: An Analysis of Entry and Exit Behavior

Author(s): Podgursky, Michael; Monroe, Ryan; Watson, Donald

Source: Economics Review of Education

Publication type: Scientific Research

Full text: URL not available

Abstract: This article presents the results of a study that examined how labor market decisions affect the academic quality of public school teachers. A rich longitudinal data set of recent Missouri public college graduates and new public school teachers formed the basis of the analysis. This study was novel in that there was an ability to link the records of Missouri's new public school teachers and recent cohorts of college graduates to a master file of ACT scores. The results showed that college graduates with above average ACT scores tended to not select teaching as a profession, and this relationship is strongest for elementary level teachers. Although women were more likely to select teaching as a profession than men, high ability women were as likely as men to choose another profession. High ability men and women who did choose teaching as a profession were more likely than lower achieving men and women to leave the profession. The results also showed that high quality teachers were not leaving the profession for higher pay, and that large pay increases would be needed to retain high ability math and science teachers.

The Impact of Salary Differentials on Teacher Shortages and Turnover: The Case of Mathematics and Science Teachers

Author(s): Rumberger, Russell

Source: Economics of Education Review v6 n4 p389-99 1987

Publication type: Scientific Research

Full text: URL not available

Abstract: This study used data on 453 school districts in large metropolitan areas to examine the relationship between teacher salaries and salaries in alternative careers, and teacher turnover among mathematics and science teachers. The author found that every \$1,000 difference between

average teacher salaries and average engineering salaries in a district was associated with a significant 0.19 percentage point increase in teacher shortages, measured as the percentage of mathematics and science teachers who were uncertified. Higher district teacher salaries and higher engineering salaries for women were associated with reduced teacher turnover in most states.

Incentives for Teaching in Hard-to-Staff Schools

How Does Teacher Pay Compare? Methodological Challenges and Answers

Author(s): Allegretto, Sylvia A.; Corcoran, Sean P.; Mishel, Lawrence

Source: Economic Policy Institute, Washington, D.C.

Publication type: Research reviews and books

Full text: URL not available

Abstract: This publication presents information on the debate over teacher pay, evidence of lagging teacher income growth, teacher pay and teacher quality, relative weekly earnings of teachers, as well as the fringe benefit bias. It also includes statistics from national surveys on weekly teacher pay.

How Principals Can Attract Teachers to the Middle Grades

Author(s): Carter, Margie S.; Carter, Charles M.

Source: Schools in the Middle v9 n8 p23–5 April 2000

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study explored the attitudes of teacher education majors concerning the possible choice to teach in middle school grades. Tabulations from a survey of 170 teacher candidates from North Carolina and Virginia were presented and discussed. Only nine percent of the respondents expressed an interest in middle school education. Concerns about classroom discipline and perceptions of adolescent attitudes were the main reasons given for not choosing middle school education. Respondents listed monetary incentives, smaller classes, strict discipline plans, scholarships, and waiver of licensure requirements as factors that might increase their motivation to teach in the middle grades.

The Massachusetts Signing Bonus Program for New Teachers: A Model of Teacher Preparation Worth Copying?

Author(s): Fowler, R. Clarke

Source: Education Policy Analysis Archives v11 n13 Spring 2003

Publication type: State or Regional Reports, In the Spotlight

Full text: <http://epaa.asu.edu/epaa/v11n13/>

Abstract: This article uses review of state government documents to examine the effectiveness of the Massachusetts signing bonus (and fast-track training) program for new teachers in recruiting

new teachers in the state. The author argues that the cross-country recruiting efforts were expensive, relative to the number of teachers recruited, in part due to recruitment efforts in higher salary states that often had teacher shortages. The author finds that 41 percent of the teachers were working in high-needs districts. The author argues that there was inconsistent commitment by the state to meeting the needs of high-needs districts. The author finds that program participants had higher rates of attrition than found in a national sample and argues that the rate of migration out of high-needs schools was high. The author reviews program evaluations and argues that official statements about the program's effectiveness have not always been well supported by the evidence. The author then argues that this evidence suggests alternative training programs for teachers may not be effective at recruiting high numbers of teachers into the teacher workforce. The author concludes with a recommendation that experimental programs for recruiting teachers be evaluated independently.

Lifting Teacher Performance

Author(s): Leigh, Andrew; Mead, Sara

Source: Progressive Policy Institute (Policy Report) Spring 2005

Publication type: Issue Paper, Policy

Full text: http://www.ppionline.org/documents/teachqual_0419.pdf

Abstract: This paper analyzes promising new research about teacher quality and the incentives for teachers to do better. The authors assess current teacher quality approaches and offer recommendations to help policymakers modernize how teachers are prepared, hired, evaluated, and compensated. The authors discuss the current teacher quality problems. They point out that some traditional solutions do not work to solve these problems. They suggest many promising alternatives based on research studies, including performance-based pay, paying teachers more to work in hard-to-staff schools, and alternative teacher certification. Finally, they provided policy recommendations to improve teacher quality.

How Teachers' Choices Affect What a Dollar Can Buy: Wages and Quality in K–12 Schooling

Author(s): Loeb, Susanna

Source: Education Finance Research Consortium n31 2000

Publication type: Scientific Research, Rigorous Research, National Reports

Full text: <http://www.albany.edu/edfin/symp2000/LoebW3.pdf>

Abstract: This study examined the distribution of teachers and teacher salaries in New York State and nationally. A school-level, aggregate measure of teacher qualifications was developed using factor analysis of data on certification, college degree, competitiveness of college, NTE passage, and tenure. Ordinary least squares with fixed effects were used to examine relationships between quality measures and school, district and regional characteristics. Much of the variation in teacher qualifications across schools was found to be within districts, since salaries do not vary by school. Schools with higher achieving and higher socioeconomic students were found to have teachers with higher qualifications. Policy recommendations include targeted salary increases and targeted improvements in working conditions to attract teachers to low-performing schools and reduce disparities in teacher quality.

The Quest for Quality: Recruiting and Retaining Teachers in Philadelphia

Author(s): Neild, Ruth Curranl; Useem, Elizabeth; Farley, Elizabeth

Source: Research for Action 2005

Publication type: Scientific Research, State or Regional Reports

Full text: <http://www.researchforaction.org/PSR/PublishedWorks/QuestforQuality.pdf>

Abstract: This study draws on district personnel data, teacher surveys, interviews, focus groups, and observations to describe and evaluate Philadelphia's efforts to recruit and retain teachers as well as other teacher-related issues. About 40 percent of teachers who entered the district in 1999 remained four years later, with lower retention in middle schools and high-poverty schools; however, high-poverty elementary schools had higher retention. There is evidence that teachers who entered in 2003 have higher retention rates, which may be due to the district's new induction program. Retention in schools managed by external providers (e.g., Edison) dropped after schools were taken over and has increased in the second year after takeover. That said, retention after two years in externally managed schools has not returned to pretakeover levels. Recruitment efforts appear to have increased applications by 44 percent, with one third of new teachers reporting that financial incentives were important to their applying to the district and more than 500 applicants coming through alternative preparation programs. Current expanded induction efforts and future plans to implement a new teacher contract and hiring process are described. Continuing challenges to recruitment and retention include working conditions, continued use of underprepared teachers in special education, implementation of No Child Left Behind highly qualified requirements, many new teachers stating the intention to teach for only a few years, and the cost of recruitment and retention efforts.

Experimenting with Teacher Compensation

Author(s): Odden, Allan; Wallace, Marc

Source: The School Administrator October 2004

Publication type: Policy, Issue Paper

Full text: <http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=1128>

Abstract: This issue paper argues that the primary sources of teacher salary data—annual reports from two teacher unions—do not provide a comprehensive picture of teacher compensation. The authors suggest that the National Center for Education Statistics and the Bureau of Labor Statistics partner to present more thorough data on teacher pay, including fringe benefits, to inform policymakers, and state and district level decision makers. The authors summarize a series of issues around teacher salaries and offer an alternative analysis of teacher compensation. The authors address how components of the teacher salary and benefits system can impact the overall analysis of teacher compensation, including: (1) shorter work days and work years for teachers (nine- or 10-month school years) versus full-year employees; (2) teachers' starting salaries as compared to other beginning professionals; (3) fringe, or other nonsalary benefits, such as health insurance and retirement plans; and (4) trends within a state's salary schedule, including raises.

Job Satisfaction among America's Teachers: Effects of Workplace Conditions, Background Characteristics, and Teacher Compensation

Author(s): Perie, M.; Baker, D.P.

Source: Statistical Analysis Report NCES 97-471. Washington, DC: National Center for Education Statistics 1997

Publication type: National reports

Full text: <http://nces.ed.gov/pubs97/97471.pdf>

Abstract: This national report from the National Center for Education Statistics explores satisfaction with teaching as a profession by looking at indicators associated with satisfaction, including salary, school characteristics, and teacher background. The 1993-1994 Schools and Staffing Survey (SASS) was the source of data for this study. The results from this study are presented using descriptive statistics and regression analysis, and suggest that student behavior, administrative support and teacher autonomy are working conditions that are important in teacher satisfaction. Teachers with fewer years of experience often experience more satisfaction than more experienced teachers, although teaching experience was not considered to be as significant an indicator of satisfaction as working conditions. The report discusses these and it many other details in depth.

Fringe Benefits

Author(s): Podgursky, Michael

Source: Education Next v3 Summer 2003

Publication type: In the Spotlight, Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3347981.html>

Abstract: In a review of alternative teacher compensation models that have been used in school districts around the country, the authors present the prevalent approaches, and highlight the implementation in selected districts. Based on the premise that teachers can be the most important factor in positively impacting student achievement, states and school districts are introducing new measures to attract and reward high-quality teachers. These strategies include market-based salary incentives for certain populations of teachers, and pay-for-performance structures that reward both improved teacher performance and increased student achievement. The article highlights alternative compensation approaches adopted by schools and districts around the country and summarizes the outcomes.

The Single Salary Schedule for Teachers in K-12 Public Schools

Author(s): Podgursky, Michael

Source: Center for Reform of School Systems 2002

Publication type: In the Spotlight, Policy, Issue Paper

Full text: URL not available

Abstract: This paper begins with an historical background of teacher compensation from the 1800's, when a teacher negotiated his or her pay with the local school board to the current

ubiquitous single salary schedules that compensate teachers for years of service and educational attainment. Podgursky pointed out that a single pay schedule results in shortages by field. For instance, it is more difficult to recruit high school math teachers than elementary school teachers. In the single salary schedule effective and poor teachers are compensated at the same rate. The author uses data from Houston Independent School District to illustrate that high poverty schools tend to have the teachers with the least experience.

Podgursky then discusses objections to merit pay. The article ends with a summary of current reforms: recruitment incentives or higher starting salaries for hard to fill positions (e.g., special education), bonuses for hard to staff schools, and merit or performance-based pay.

Teacher Performance Pay: A Review

Author(s): Podgursky, Michael J.; Springer, Matthew G.

Source: Nashville: Vanderbilt University, National Center on Performance Incentives October 24, 2006

Publication type: Research review and books

Full text: URL not available

Abstract: This working paper examined the "economic case" for performance-related pay in K-12 education. The first part of the review was a history of compensation models from the grade-based model to the current single-salary schedule, currently ubiquitous in the U.S. educational system. The authors reviewed the theoretical arguments involving performance-related pay (e.g., performance, monitoring, team production) followed by a review of several performance-based programs in Denver, Texas, and Minnesota, as well as programs supported by the Milken Family Foundation, and the U.S. Department of Education's Teacher Incentive Fund. The paper concluded with a review of empirical research on performance-based pay. The authors concluded that the methodologies employed by empirical studies on performance-based pay were extremely diverse. Consequently, they were unable to draw any general conclusions from them. They recommended rigorous program evaluations of programs as they are implemented.

Teacher Recruitment in a School Reform State: Factors That Influence Applicant Attraction to Teaching Vacancies

Author(s): Winter, Paul A.; Melloy, Samuel H.

Source: Educational Administration Quarterly v41 n2 p349-372 Spring 2005

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study uses a survey of teacher trainees and experienced teachers in Kentucky to investigate the relationship between school accountability ratings, signing bonuses, experience, and interest in a job. The researchers found that vacancies at lower rated schools were significantly less interesting to teachers even if they included a 10 percent signing bonuses. They also found experienced teachers were generally less interested in vacancies than inexperienced teachers. Policy recommendations include different recruitment strategies for new and

experienced teachers and further exploration of nonmonetary inducements for teaching in low-rated schools.

Differentiated Pay

How Does Teacher Pay Compare? Methodological Challenges and Answers

Author(s): Allegretto, Sylvia A.; Corcoran, Sean P.; Mishel, Lawrence

Source: Economic Policy Institute, Washington, D.C.

Publication type: Research reviews and books

Full text: URL not available

Abstract: This publication presents information on the debate over teacher pay, evidence of lagging teacher income growth, teacher pay and teacher quality, relative weekly earnings of teachers, as well as the fringe benefit bias. It also includes statistics from national surveys on weekly teacher pay.

Barriers to Interdisciplinary Teacher Preparation: Pleading the Case (Again) for Differentiated Faculty Reward Structures

Author(s): Miller, P.S.

Source: Action in Teacher Education v21 n2 p72–79 Summer 1999

Publication type: Scientific Research, Rigorous Research

Full text: URL not available

Abstract: The report describes findings from a 1996–97 national study of birth through age 8 (B–8) teacher preparation programs that are one model in the movement of developing interdisciplinary teacher preparation programs, and surveys higher education faculty regarding the barriers to establishing such programs. The B–8 program concept has developed from research on educating special education students in both inclusion and self-contained classroom environments, and from new ideas on the preparation of young children. Preparing teachers in this discipline will require coordinating teacher preparation faculty from across disciplines. The author cites one study that suggests this faculty collaboration must exist between early childhood education, child development, special education, communication development, social work, and other related areas. Ninety-six potential participants were asked to answer 53 open- and closed-ended questions regarding interdisciplinary teacher preparation programs and, specifically, the barriers in establishing those programs. Respondents answered that administrative/structural constraints, interpersonal issues, and time or logistical issues with participating on interdisciplinary teams were the largest obstacles to implementation. The study concludes that reform is needed in faculty reward structures to promote interdisciplinary participation and to modify teacher preparation programs to prepare teachers who are better equipped to handle the changing needs of students and schools.

Incentives for Teachers: What Motivates, What Matters?

Author(s): Moore Johnson, Susan

Source: Educational Administration Quarterly v22 n23 p54–79 Spring 1986

Publication type: Research Reviews and Books, Issue Paper

Full text: URL not available

Abstract: The article examines intrinsic and extrinsic motivation theories related to teachers, specifically, pay as an extrinsic factor and pride in one's work as an intrinsic factor. The author reviews the debates regarding merit pay compensation system and how they effect teacher motivation. The research suggests that some concerns regarding pay for performance are echoed in discussions of career ladders and differentiated staffing plans, in that these systems are put into place as incentives for those teachers who want more and varied responsibility in their jobs. With organizational incentives, extrinsic rewards are targeted to the individual interested in financial gain. The author suggests further research should be conducted to understand the implications and interaction of intrinsic and extrinsic motivation factors in education.

Experimenting with Teacher Compensation

Author(s): Odden, Allan; Wallace, Marc

Source: The School Administrator October 2004

Publication type: Policy, Issue Paper

Full text: <http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=1128>

Abstract: This issue paper argues that the primary sources of teacher salary data—annual reports from two teacher unions—do not provide a comprehensive picture of teacher compensation. The authors suggest that the National Center for Education Statistics and the Bureau of Labor Statistics partner to present more thorough data on teacher pay, including fringe benefits, to inform policymakers, and state and district level decision makers. The authors summarize a series of issues around teacher salaries and offer an alternative analysis of teacher compensation. The authors address how components of the teacher salary and benefits system can impact the overall analysis of teacher compensation, including: (1) shorter work days and work years for teachers (nine- or 10-month school years) versus full-year employees; (2) teachers' starting salaries as compared to other beginning professionals; (3) fringe, or other nonsalary benefits, such as health insurance and retirement plans; and (4) trends within a state's salary schedule, including raises.

The Single Salary Schedule for Teachers in K-12 Public Schools

Author(s): Podgursky, Michael

Source: Center for Reform of School Systems 2002

Publication type: In the Spotlight, Policy, Issue Paper

Full text: URL not available

Abstract: This paper begins with an historical background of teacher compensation from the 1800's, when a teacher negotiated his or her pay with the local school board to the current ubiquitous single salary schedules that compensate teachers for years of service and educational attainment. Podgursky pointed out that a single pay schedule results in shortages by field. For instance, it is more difficult to recruit high school math teachers than elementary school teachers. In the single salary schedule effective and poor teachers are compensated at the same rate. The author uses data from Houston Independent School District to illustrate that high poverty schools tend to have the teachers with the least experience.

Podgursky then discusses objections to merit pay. The article ends with a summary of current reforms: recruitment incentives or higher starting salaries for hard to fill positions (e.g., special education), bonuses for hard to staff schools, and merit or performance-based pay.

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Full text: URL not available

Abstract: This working paper examined the "economic case" for performance-related pay in K-12 education. The first part of the review was a history of compensation models from the grade-based model to the current single-salary schedule, currently ubiquitous in the U.S. educational system. The authors reviewed the theoretical arguments involving performance-related pay (e.g., performance, monitoring, team production) followed by a review of several performance-based programs in Denver, Texas, and Minnesota, as well as programs supported by the Milken Family Foundation, and the U.S. Department of Education's Teacher Incentive Fund. The paper concluded with a review of empirical research on performance-based pay. The authors concluded that the methodologies employed by empirical studies on performance-based pay were extremely diverse. Consequently, they were unable to draw any general conclusions from them. They recommended rigorous program evaluations of programs as they are implemented.

Measurement

Teacher Evaluation

New Trends in Teacher Evaluation

Author(s): Danielson, Charlotte

Source: Educational Leadership v58 n5 p12–15 Winter 2001

Publication type: In the Spotlight

Full text: URL not available

Abstract: This article summarizes some new trends in teacher evaluation that merge professional development with quality assurance. These evaluation systems include differentiated systems, multiyear evaluation cycles, and active roles of teachers in various forms, including portfolios, professional conversation, and student achievement. With these new trends in teacher evaluation, educators have come to recognize the value of teacher evaluation as both professional development and quality assurance.

Teacher Quality and Student Achievement: A Review of State Policy Evidence

Author(s): Darling-Hammond, Linda

Source: Education Policy Analysis Archives v8 n1 January 2000

Publication type: Rigorous Research

Full text: <http://epaa.asu.edu/epaa/v8n1/>

Abstract: This article looks at various data sources throughout the nation and examines the relationship between teacher qualifications, other school inputs, and student achievement. Using both qualitative and quantitative analysis, the results suggest that there is a relationship. Policy investments in the quality of teachers may be related to improvements in student performance. Quantitative results focus on measures of teacher preparation and certification. State policy analysis indicates that states adopting innovative policies may make an importance difference in the capacity of teachers in their schools.

Linking Teacher Assessment to Student Performance: A Benchmarking, Generalizability, and Validity Study of the Use of Teacher Work Samples

Author(s): Denner, Peter R.; Salzman, Stephanie A.; Bangert, Arthur, W.

Source: Journal of Personnel Evaluation in Education v15 n4 p287–307 Winter 2001

Publication type: Scientific Research, Rigorous Research

Full text: URL not available

Abstract: The authors examined the validity and generalizability of the use of teacher work samples to assess preservice and inservice teachers' abilities to meet national and state teaching standards and to impact the learning of their students. Teacher Work Sample Methodology (TWSM) is a complex assessment developed at Western Oregon University. Teachers are asked to document their teaching of an actual set of lessons. The documentation includes planning for

instruction, the design of an instructional sequence, a plan for the assessment of learning, demonstration and analysis of the impact of instruction on student learning, and reflection upon the success of the instructional unit. The authors adapted Western Oregon's TWSM to the undergraduate teacher preparation context in the way the work samples were structured and scored. To assess the validity of this adapted teacher work sample assessment, they collected 54 work samples from junior-level candidates, 44 samples from senior student-teaching interns, 30 samples from experienced teachers, and 4 samples from National Board Certified teachers. The findings supported several aspects of the content validity of teacher work sample assessments as valid and authentic measures of teaching performance. A panel of five raters, including external ones, was able to achieve a high degree of reliability in their ratings of benchmarked sets of teacher work samples. An acceptable level of reliability could be achieved with as few as two raters.

The Relationship Between Measures of Teacher Quality and Student Achievement: The Case of Vaughn Elementary

Author(s): Gallagher, H. Alix

Source: Consortium for Policy Research in Education CPRE-UW Working Papers Series TC-02-5 Spring 2002

Publication type: Scientific Research

Full text: URL not available

Abstract: Using Teacher Evaluation Scores (TES) and Stanford Achievement Test, Ninth Edition scores; the author tested the extent to which TES are associated with student achievement. Using a sample of students and teachers from one PK–5 urban elementary school in California, results show a moderately significant relationship between teacher-evaluation scores and classroom achievement in reading. However, the relationships between TES and achievement in mathematics and language arts were not significant. Study limitations and suggestions for future research are presented.

Options for Studying Teacher Pay Reform Using Natural Experiments

Author(s): Glazerman, S.; Silva, T.; Addy, N.; Avellar, S.; Max, J.; McKie, A.; Natzke, B.; Puma, M.; Wolf, P.; Ungerer Greszler, R.

Source: Washington, DC: Mathematica Policy Research, Inc. March 2006

Publication type: Policy

Full text: <http://www.mathematica-mpr.com/publications/pdfs/teacherpayreform.pdf>

Abstract: This article details the potential studies that can be undertaken on teacher incentive programs throughout the nation. There are various approaches to teacher incentive pay and conducting a rigorous study of teacher pay reform is a challenge. This report detailed potential case studies for researching seven different incentive pay programs in different states and presents recommendations on how secondary data could be used to study these programs. The report also highlights issues regarding sample size adequacy, cost, and other factors to consider when planning a rigorous research project such as this.

The Business Model

Author(s): Greene, Jay P.

Source: Education Next v2 Spring 2002

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3807061.html>

Abstract: This article focuses on the usefulness of value-added analysis in measuring accountability. While there are many arguments against the use of value-added analysis, this issue paper posits that the development of a value-added testing system might have created a data pool that could improve hiring systems, promotion of schools, and teacher compensation. The article also theorizes that value-added systems could improve the governing of schools and hold them accountable.

The Revolving Door

Author(s): Hanushek, Eric; Rivkin, Steven G.

Source: Education Next v1 Winter 2004

Publication type: Scientific Research

Full text: <http://www.hoover.org/publications/ednext/3345156.html>

Abstract: This article reports on research that has been conducted in Texas on the reasons that teachers leave the profession. There are many different factors that influence the recruitment and retention of teachers such as salary, working conditions, and preferences. The research that this article reviews posits that working conditions mattered more to teachers than salary when making decisions to stay, leave, or teach in a certain district. Teaching in low achievement schools was also a strong decision factor in movement between districts. The results of this study have policy implications for the recruitment and retention of teachers in Texas public schools.

Continuing Assessment of Teacher Reactions to a Standards-Based Teacher Evaluation System

Author(s): Heneman, Herbert G., III; Milanowski, Anthony T.

Source: Journal of Personnel Evaluation in Education v17 n2 p173–195 Summer 2003

Publication type: Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: This article presents the results from a continuing evaluation of a newly designed and implemented standards-based evaluation system in the Cincinnati school district in 2000–02. This evaluation system was based on a set of teaching standards derived from the framework for teaching that categorizes 16 performance standards into four domains: planning and preparation, creating an environment for learning, teaching for learning, and professionalism. Teachers' performance on each standard was to be rated at one of four levels (unsatisfactory, basic, proficient, and distinguished), as defined by a behaviorally anchored rating scale. The instrument was field-tested in 10 schools during the 1999–2000 school year. Based on the field test, several major changes were made to the evaluation system. This study focused on the full

implementation of this evaluation in 2000–02 to address two major issues: to assess interrater agreement between teacher evaluators and administrators, and to assess teachers’ reactions to the new evaluation system. The researchers found that carefully selected and trained peer evaluators provided ratings that have moderate to high agreement with administrators’ ratings. Most teachers’ specific reactions were neutral; however, teachers’ overall reactions to the new system were less favorable. The authors make several suggestions on steps that districts should take to increase the likelihood of designing and implementing an effective and sustainable standards-based teacher evaluation system.

Standards-Based Teacher Evaluation as a Foundation for Knowledge- and Skill-Based Pay

Author(s): Heneman, Herbert G., III; Milanowski, Anthony T.; Kimball, S.; Odden, Allan R.

Source: CPRE Policy Briefs, RB-45 May 2006

Publication type: Issue Paper

Full text: <http://www.cpre.org/Publications/RB45.pdf>

Abstract: This policy brief focuses on accountability systems for knowledge- and skill-based teacher pay. The report reviews previous research done on current programs in various states. The researchers found positive relationships between teacher evaluation scores and student achievement, though the relationship varied across sites. They also assessed the effects on teaching practice, which was shown to be positive with the new compensation systems. The report concludes with a discussion of policy implications and guidelines for future compensation reforms.

When Principals Rate Teachers

Author(s): Jacob, B.; Lefgren, L.

Source: Education Next v2 Spring 2006

Publication type: Rigorous Research

Full text: URL Not Available

Abstract: Principals’ ability to assess their teacher’s performance is explored in this article. The implementation of merit-pay systems requires principals to accurately measure teacher performance in their ability to boost student achievement. Analysis indicates a positive correlation between the principal’s assessment of teacher effectiveness and the teacher’s actual ability to improve student performance. Jacob and Lefgren consider factors impacting this correlation.

Catching up With the Vaughn Express: Six Years of Standards-Based Teacher Evaluation and Performance Pay

Author(s): Kellor, Eileen

Source: Educational Policy Analysis Archives v13 n7 2005

Publication type: State or Regional Reports

Full text: <http://epaa.asu.edu/epaa/v13n7/v13n7.pdf>

Abstract: The Vaughn Next Century Learning Center is a public conversion charter school in the Los Angeles Unified School District. Vaughn Center developed a new knowledge- and skills-

based pay program in 1997–98 school year. This also came with a new evaluation system. This paper provides an overview of the development and evolution of the performance-pay program and the new teacher evaluation system implemented at the Vaughn Center. Vaughn teachers' reactions to these innovations are discussed. Finally, the author offers key recommendations to help those who plan to implement knowledge- and skills-based pay or standards-based teacher evaluation.

Dollars and Sense

Author(s): Keys, Benjamin J.; Dee, Thomas S.

Source: Education Next v1 Winter 2005

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3258651.html>

Abstract: Merit-pay programs implemented in Tennessee were designed as career ladders. The career ladder programs were designed to reward teacher performance while not basing rewards on student achievement. These programs delivered mixed results among teachers. Teachers who participated in the career ladder program saw higher gains in performance of their students versus teachers who did not.

Examining the Relationship Between Teacher Evaluation and Student Assessment Results in Washoe County

Author(s): Kimball, Steven M.; White, Brad; Milanowski, Anthony T.; Borman, Geoffrey

Source: Peabody Journal of Education v79 n4 p54–78 2004

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: In the search for adequate measures of teacher effect on student achievement, teacher performance assessment results could be considered one possible alternative if the evaluation scores can be shown to be valid measures of teaching practice and to have the expected positive relationship to student achievement. The authors analyzed the relationship between scores on a standards-based teacher evaluation system and student achievement measures in Nevada's Washoe County School District (WCSD). The WCSD developed a new teacher evaluation system designed to measure four domains of teaching practice: planning and preparation, classroom environment, instruction, and professional responsibilities. Each domain has a number of teaching components, and every component has several elements. Each element includes separate behavioral descriptions on a four-level rubric scale: unsatisfactory, target for growth, proficient, and area of strength. There are 23 components of professional practice and 68 elements in the WCSD system. Student achievement was assessed with several measures including results from district, state, and national norm-referenced tests for third-, fourth-, and fifth-grade students in mathematics and reading. The two-level regression model was used to study the relationship between teacher evaluation scores and student achievement, controlling for the effects of other student and teacher characteristics. Positive relationships between teacher evaluation scores and student achievement were demonstrated, but not for all cases.

Intrinsic Motivation and Extrinsic Incentives

Author(s): Kreps, David M.

Source: The American Economic Review v87 n2 p359-364 May 1997

Publication Type: Issue Paper

Full text: [http://links.jstor.org/sici?sici=0002-](http://links.jstor.org/sici?sici=0002-8282(199705)87%3A2%3C359%3AIMAEI%3E2.0.CO%3B2-R)

[8282\(199705\)87%3A2%3C359%3AIMAEI%3E2.0.CO%3B2-R](http://links.jstor.org/sici?sici=0002-8282(199705)87%3A2%3C359%3AIMAEI%3E2.0.CO%3B2-R)

Abstract: This article discusses the effect norms have on intrinsic motivation and economic incentives. People adhere to norms because adherence to norms leads to multiple benefits otherwise not reachable if norms are violated. In context of work, adherence to work norms can be economically beneficial, or offer other extrinsic motivators. Intrinsic motivation is a response to extrinsic motivators.

School Self-Evaluation and School Improvement: A Critique of Values and Procedures

Author(s): Kyriakides, L.; Campbell, R.J.

Source: Studies in Educational Evaluation v30 n1 p23-36 2004

Publication Type: Research Reviews and Books

Full Text: [http://www.elsevier.lib.tsinghua.edu.cn/cgi-](http://www.elsevier.lib.tsinghua.edu.cn/cgi-bin/sciserv.pl?collection=journals&journal=0191491x&issue=v30i0001)

[bin/sciserv.pl?collection=journals&journal=0191491x&issue=v30i0001](http://www.elsevier.lib.tsinghua.edu.cn/cgi-bin/sciserv.pl?collection=journals&journal=0191491x&issue=v30i0001)

Abstract: This article reviews relevant literature existing on self-school evaluation to guide in the development of evaluations. This is used to create a blueprint of self-school evaluations, and what characteristics they should include.

The Implementation and Early Findings from a Professional Development and Performance Based Teacher Compensation System

Author(s): Mathis, William J.

Source: Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA Spring 2002

Publication type: State or Regional Reports

Full text: URL not available

Abstract: This paper described the process used at the Rutland Northeast school district in Vermont in developing a new teacher compensation system that links teacher compensation to school and district goals instead of student achievement test scores. Under the new system, teachers present a professional portfolio, which mirrors the state's relicensing criteria, to a committee made up of board members, administrators, and peers. This portfolio contains annual professional-growth plans, annual summative evaluations, and evidence of meeting the state standards. Requirements may be met by a combination of courses, workshops, mentoring, public engagements, or any other appropriate academic activity. They avoid direct links of achievement test scores to teacher pay. They also emphasize a plan for a smooth transition from an old to a new system. The author summarizes six factors leading to the successful program adoption, including: (1) all teachers can participate, (2) professional development is broadly defined, (3)

group activities are counted, (4) sufficient development and implementation time is provided, (5) the boards and teachers have leadership maturity, and (6) the plan progresses with recognition of local culture and synergy. The author reports preliminary findings from the implementation of the program in the first two years. The transition to the new compensation system has been smooth because of the consistency of the committees and the mature leadership of school board members, administrators, and teachers.

The Relationship Between Teacher Performance Evaluation Scores and Student Achievement: Evidence From Cincinnati

Author(s): Milanowski, Anthony

Source: Peabody Journal of Education, v79 n4 p33–53 2004

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: The author examines the relationship between teacher evaluation scores in the Cincinnati public school district, which has a rigorous, standards-based teacher evaluation system and a value-added measure of student achievement. The teacher assessment system was based on a set of teaching standards derived from the framework for teaching. Sixteen performance standards were grouped into four domains: planning and preparation, creating a learning environment, teaching for learning, and professionalism. Each standard has a set of behaviorally anchored rating scales described in four levels: unsatisfactory, basic, proficient, and distinguished. Teachers were evaluated based on six classroom observations and a portfolio. Student achievement was assessed from student test scores from the district and state for students in Grades 3–8 in reading, mathematics, and science. A two-level, hierarchical linear model was used to study the relationship between teacher evaluation scores and student achievement, controlling for extraneous variables of teacher and student characteristics. Small to moderate positive correlations were found for most grades in each subject tested. The results showed that scores from a rigorous teacher evaluation system can be related substantially to student achievement and provide criterion-related validity evidence for the use of performance-evaluation scores as the basis for a performance-based pay system for teachers.

The Varieties of Knowledge and Skill-based Pay Design: A Comparison of Seven New Pay Systems for K-12 Teachers

Author(s): Milanowski, Anthony

Source: Education Policy Analysis Archives v11 n4 January 29, 2003

Publication type: Research reviews and books, Policy

Full text: URL not available

Abstract: This article described qualitative research on seven "pioneer" knowledge and skills-based pay programs. A theory of action, which linked teacher motivation, type of incentives, and other factors to student achievement, guided the study. First, the author discussed the advantages of knowledge and skills-based pay programs. Second, he developed seven dimensions to structure the analysis and comparison of the programs, including motivation for program development, the design process, types and structures of reward, assessment of skills acquisition, size and structure of

knowledge and skills incentives, alignment of other human resource programs, and cost and funding. Third, case study site visits of six school districts and one-charter school informed and supported the analysis a cross-site analysis. The results showed that although the districts had different reasons for implementing the skills-based pay systems, the author identified several lessons learned: (1) the programs retained seniority and degrees as factors for pay increases, (2) teachers' associations did not summarily dismiss changes in the pay structure, (3) the use of pre-existing standards will facilitate adoption of a new pay system, and (4) the transition to a knowledge and skills-based pay system can be low-cost.

The Criterion-Related Validity of the Performance Assessment System in Cincinnati

Author(s): Milanowski, Anthony

Source: Working Paper TC-03-07. Presented at the annual meeting of the American Educational Research Association, Chicago. Madison, WI: Univ. of Wisconsin-Madison, Wisconsin Center for Education Research, Consortium for Policy Research in Education March 2003

Publication type: Scientific Research, State or Regional Reports, Policy, Issue Paper

Full text: URL not available

Abstract: This paper presented the results of an analysis of the relationship among teachers' evaluation scores and student achievement. This was an exploration of the feasibility of linking teacher compensation on student achievement. The author analyzed reading, math, and science test scores from two consecutive years for students in grades 3 through 8. The student achievement tests were either the district test, state proficiency test, or for one year the Terra Nova test. The state proficiency test was based on student content standards and had four score ranges: below basic, basic, proficient, and advanced. The district tests covered similar content. The teacher evaluations were in four domains (e.g., planning and preparation, creating an environment for learning, teaching for learning, and professionalism). The results showed that the teacher evaluation system had a moderate degree of criterion-related validity. The results suggest that a teacher evaluation system is able to identify teachers with students who achieved higher than expected achievement.

Assessment of Teacher Reactions to a Standards-Based Teacher Evaluation System: A Pilot Study

Author(s): Milanowski, Anthony T.; Heneman, Herbert G., III

Source: Journal of Personnel Evaluation in Education v15 n3 p193–212 Spring 2004

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: A new standards-based teacher evaluation system has been developed in a medium-size Midwestern school district based on the Danielson Framework for teaching. This study assesses teachers' reaction to a pilot implementation of this new evaluation system in 1999–2000 school year, using survey and interview methods. Overall, teachers neither fully embraced the new system nor rejected it out of hand. Teachers perceived both positive and negative aspects of the system. While most teachers accepted the evaluation standards and the need for a new evaluation system, many also perceived the system as adding too much workload on teachers. As

a result of the pilot test, significant changes in the evaluation system were made before its full implementation in all schools in the 2000–01 school year.

Teacher Knowledge and Skill Assessments and Teacher Compensation: An Overview of Measurement and Linkage Issues

Author(s): Milanowski, Anthony; Odden, Allan; Youngs, Peter

Source: Journal of Personnel Evaluation in Education v12 n2 p83–101 Summer 1998

Publication type: National Reports, In the Spotlight

Full text: URL not available

Abstract: A pay system based on knowledge and skills in teaching would involve not only a more detailed, practice-oriented specification of teacher knowledge and skills but also an assessment system to determine whether these components are present. New measures of teacher skills, based on conceptions of professional practice consistent with the requirements of standards-based reform, have been developed at the national level. They include assessments of beginning teachers developed by the Interstate New Teacher Assessment and Support Consortium, the PRAXIS III assessment developed by ETS, and assessments for the certification of experienced teachers developed by the National Board for Professional Teaching Standards. This article discusses the measurement quality of these assessments and their linkage to teacher compensation system. Important measurement issues addressed include criterion-related validity, content validity, and reliability and consistency. More information is needed for valid measurement quality of these assessments. The authors point out many unresolved issues of these measures, including generalizability, interrater agreement, adverse impact, and consequential validity. The authors also suggest a way to combine national and local standards and assessments with locally developed definitions and assessments of skills to form a coherent knowledge- and skills-based pay system.

The Use of Portfolios for In-Service Teacher Assessment: A Case Study of Foreign Language Middle School Teachers in Texas

Author(s): Moore, Zena; Bond, Nathan

Source: Foreign Language Annals v35 n1 p85–92 Winter 2002

Publication type: Scientific Research

Full text: URL not available

Abstract: Texas legislated a new form of teacher assessment called the Professional Development and Appraisal System (PDAS), which evaluates teachers according to 51 criteria in eight domains. This system has three components: an administrative observation, a teacher self-report, and a summative conference. The researchers introduced the concept of portfolio to help organize a teacher self-report. This case study documents the efforts of a group of foreign language middle school teachers as they developed professional portfolios. Their portfolio items were organized into three categories according to the requirement of the PDAS: (1) academic skills, (2) instructional modifications, and (3) goals and professional activities. The portfolios contained minimal evidence of language teaching. Teachers seemed to have difficulty making distinctions between goal setting and instruction modifications. This confusion, accompanied

with a lack of peer collaboration, resulted in a poor selection of artifacts. The authors make two major recommendations: (1) teachers developing a portfolio may need to see an exemplary model to help them understand how to select artifacts, and (2) full administrative support for teachers developing portfolios is needed.

Developing a Technology Infrastructure to Support a High-Stakes Teacher Performance Assessment Program

Author(s): Muenzen, Patricia M.

Source: Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA Spring 2001

Publication type: State or Regional Reports

Full text: URL not available

Abstract: Connecticut is the first state to implement mandatory portfolio assessment as a component of its teacher certification program known as the Beginning Educator Support and Training (BEST) program. The program is a three-year induction process that includes both support (mentorship from an experienced teacher and attendance at professional development seminars) and assessment (subject-specific portfolio). The Connecticut Educator Database was developed to handle the information related to implementing the BEST program. This article describes the development of this database system and the strategies used to manage various kinds of information in the BEST program.

Selection and Survival in the Teacher Labor Market

Author(s): Murnane, Richard J.

Source: The Review of Economics and Statistics v66 p513–8 1984

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This study examined the relationship between the attrition of elementary school teachers and their productivity, as measured by supervisors' evaluations and student test score gains. Data were collected on 104 elementary teachers in an urban school district and on 1,027 students taught by the teachers in the sample. The study found that teachers who had received lower ratings from their principals in their first years of teaching were more likely to leave the school system than teachers with higher ratings. The study did not find a strong relationship between student test score gains and teacher attrition.

Merit Pay and the Evaluation Problem: Why Most Merit Pay Plans Fail and a Few Survive

Author(s): Murnane, R.; Cohen, D.

Source: Harvard Educational Review v56 n1 p1-17 1986

Publication type: Research reviews and books

Full text: URL not available

Abstract: Why have merit pay system historically been unsuccessful despite an enduring desire to implement systems paying teachers based on merit? This article explores that question by examining the frameworks used to create these systems. Murnane suggests that the failure of merit pay is cannot solely be attributed to resistance to these systems Previous literature on merit pay system indicate that two different frameworks, the ‘new style merit pay,’ where teachers are paid based on student test score gains, and ‘old style merit pay,’ which bases merit pay on principal evaluations have not lasted over time. Murnane concludes by examining the characteristics of merit pay that have endured over time.

Quantitative Studies of Effective Schools: What Have We Learned?

Author(s): Murnane, Richard J.

Source: In A. Odden and L. Webb (eds.), *School finance and school improvement: Linkages for the 1980s*, p193-209. Cambridge, MA: Ballinger 1983

Publication type: Research reviews and books

Full text: URL not available

Abstract: This report reviews quantitative studies done that looked at impact various school ‘resources’ have had on what studies define as school effectiveness. Studies have shown that that there are ‘significant differences’ in school effectiveness. The resources discussed in the piece included studies that attempted to measure the impact of on school effectiveness are 1. teacher quality, 2. the impact of peer groups on learning, 3. class size, 4. instructional time, 5. school facilities, 6.

The Performance Assessment System: A Portfolio Assessment Model for Evaluating Beginning Teachers

Author(s): Oakley, Karla

Source: *Journal of Personnel Evaluation in Education* v11 n4 p323–341 Spring 1998

Publication type: State or Regional Reports

Full text: URL not available

Abstract: This article reports the development and implementation of the Performance Assessment System (PAS), a portfolio assessment mechanism for evaluating beginning teacher performance through a collection of evidence of teachers’ effectiveness in increasing student learning (associated with Teach For America). The PAS approaches teacher performance from two distinct perspectives: (1) the extent to which students have attained the goals established by the teacher and (2) the degree to which teachers’ demonstrated practice meets articulated performance standards. Teachers develop portfolios consisting of nine components, including: a compilation of student goals, a report of teaching philosophy and practice, an assessment of students’ progress, lesson plans, videotaped classroom instruction, a principal evaluation, a peer evaluation, parent evaluations, and student evaluations. Each portfolio is rated independently by two assessors. Assessors determine an overall performance rating using a four-point rating scale ranging from 1 (ineffective) to 4 (exemplary). The author also discusses several issues that have recurred throughout the ongoing design-revision process of the PAS, including technical evaluation, anchoring the levels of performance across implementations and through time, and stability across teacher populations. The PAS continues to

be piloted as an assessment tool that eventually will help districts retain only effective teachers and will empower states to license only teachers whose performance meets approved standards.

Cincinnati's New Approach to Teacher Compensation

Author(s): Odden, Allan

Source: School Business Affairs v68 n5 p20–23 Spring 2002

Publication type: State or Regional Reports

Full text: URL not available

Abstract: This article describes the Cincinnati public school district's efforts in restructuring its teacher compensation system from a traditional single-salary schedule to a performance-based payment system, which uses both a knowledge- and skills-based salary structure and school-based performance award. The three major steps in making this change are: (1) developing acceptable teaching standards, which then were organized into four domains: planning and preparing for student learning, creating a learning environment, teaching for learning, and professionalism; (2) restructuring of teacher evaluation system; and (3) creating a new salary schedule that includes five categories of teachers: apprentice, novice, career, advanced, and accomplished. The author also summarizes findings from the pilot implementation of this new teacher compensation system in 10 schools during 1999–2000 school year.

Defining Merit: How Should We Pay Teachers?

Author(s): Odden, Allan; Ballou, Dale; Podgursky, Michael

Source: Education Next v1 n1 p16–25 Spring 2001

Publication type: In the Spotlight

Full text: <http://www.educationnext.org/2001sp>

Abstract: The article provides two perspectives on merit-pay system. The first perspective suggests a design of compensation systems that provides direct incentives for teachers to improve the quality of their instruction and to raise student achievement while aligning with current education policy. A discussion on pay for knowledge and skills, pay for performance, and pay for professionals is provided. The authors give two examples of innovative changes in the teacher pay system: the Cincinnati Public Schools and the Vaughn Next Century Learning Center. The second perspective also supports a knowledge- and skills-based pay system. The use of external assessments is compared to internal peer review. Teacher compensation in private schools is discussed. Pay for knowledge and skills is a flexible alternative to the single-salary schedule; however, the essential feature of the single-salary schedule (paying teachers with equivalent credentials equally) is retained.

Using More Data Sources to Evaluate Teachers

Author(s): Peterson, Kenneth D.; Wahlquist, Christine; Bone, Kathie; Thompson, Jackie; Chatterton, Kaye

Source: Educational Leadership v58 n5 p40–43 Winter 2001

Publication type: State or Regional Reports

Full text: URL not available

Abstract: The Davis (Utah) District Educator Assessment Committee decided to improve teacher evaluation by creating an innovative teacher evaluation program. This article focuses on the effort to improve data-gathering process in this teacher evaluation program. The important feature of this evaluation program is allowing teachers to choose which data to present for evaluation. Teachers can choose among several data sources, including parent surveys, student surveys, student achievement data, documentation of professional activity, teacher tests, reports by administrators, action-research results, results of school improvement programs, and licensing by the National Board of Professional Teaching Standards. The program has received favorable responses from participating teachers and principals. The program is continuing to study and control its costs for this substantially increased data gathering for teacher evaluation.

Teacher Performance Pay: A Review

Author(s): Podgursky, Michael J.; Springer, Matthew G.

Source: Nashville: Vanderbilt University, National Center on Performance Incentives October 24, 2006

Publication type: Research review and books

Full text: URL not available

Abstract: This working paper examined the "economic case" for performance-related pay in K-12 education. The first part of the review was a history of compensation models from the grade-based model to the current single-salary schedule, currently ubiquitous in the U.S. educational system. The authors reviewed the theoretical arguments involving performance-related pay (e.g., performance, monitoring, team production) followed by a review of several performance-based programs in Denver, Texas, and Minnesota, as well as programs supported by the Milken Family Foundation, and the U.S. Department of Education's Teacher Incentive Fund. The paper concluded with a review of empirical research on performance-based pay. The authors concluded that the methodologies employed by empirical studies on performance-based pay were extremely diverse. Consequently, they were unable to draw any general conclusions from them. They recommended rigorous program evaluations of programs as they are implemented.

Teacher Mobility and Effectiveness in Restructuring and Non-Restructuring Schools in an Inner-City District

Author(s): Ross, S.M.; Wang, W.; Sanders, W.L.; Wright, S.P.; Stringfield, S.

Source: University of Memphis, University of Tennessee, and Johns Hopkins University October 1999

Publication type: Report

Full text: http://www.sas.com/govedu/edu/teacher_mobility.pdf

Abstract: This study looks at how teacher behaviors, specifically teacher effectiveness and mobility are impacted by educational reform efforts. This study is placed in Memphis, TN to examine the effects of reform in an inner-city district. The major questions this study aims to

address are: 1. Does teacher effectiveness differ for restructuring schools versus non-restructuring schools. 2. Does the level of teacher mobility differ overall for restructuring schools versus non-restructuring schools? 3. Are mobility and teacher effectiveness outcomes consistent for two cohorts of restructuring schools? 4. Are mobility and teacher effectiveness outcomes consistent for individual restructuring designs? Teacher effectiveness is measured by looking at Tennessee Value-Added Assessment System (TVAAS) scores over a four-year period. TVAAS scores reflect student growth free of biases. The implications of the results are discussed.

Revamping a Teacher Evaluation System

Author(s): Sawyer, Lynn

Source: Educational Leadership v58 n5 p44–47 Winter 2001

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: This article describes a change process of teacher-evaluation methods used in the Washoe County School District in Reno, Nevada. Drawing on the understanding of the need for changes, a new system has been developed. This new evaluation system assesses four domains of teaching: planning and preparation, classroom environment, instruction, and professional responsibilities. Each domain identifies components and specific elements of teacher behaviors. Each element uses a rubric rating of teacher behavior from unsatisfactory to target for growth to proficient to area of strength. A two-year field test was conducted. All principals and assistant principals were invited to test the system with volunteer teachers. At the end of each of two school years, surveys and focus groups were used to collect feedback data separately from administrators, novice teachers, and postprobationary teachers. The majority of experienced teachers were satisfied with the new system. They appreciated the increased control they felt in determining the outcome of their performance ratings and expressed renewed motivation toward personal improvement. Novice teachers felt secure in knowing what the indicators of success were. Dissatisfaction was noted with certain aspects of new system implementation, but not of the system itself.

What Is Required for Performance Assessment of Teaching?

Author(s): Stansbury, Kendyll

Source: WestEd Winter 1998

Publication type: In the Spotlight

Full text: URL not available

Abstract: This report examines the performance assessment of teachers to identify important elements in the process and to summarize lessons learned from the past. The author focuses on four major aspects of performance assessment: purpose of the assessment, components of an assessment system, building capacity, and building legitimacy. It is necessary to have clear purposes for assessments before choosing an instrument. Three major purposes of teacher assessment are discussed: licensure, employment, and professional development. The four components of the assessment system are described: standards, assessment instruments, scoring framework, and exploration of technical quality. Finally, unresolved issues of teacher

performance assessments are discussed, including agreement on teaching standards, continued work on the technical quality of assessments, building teacher capacity, and using performance assessments at the district level.

Intrinsic and Extrinsic Motivation

Author(s): Straw, Barry M.

Source: In H. Leavitt, L. Pondy, and D. Boje (Eds.), *Readings in Managerial Psychology*, 4th ed. Chicago: University of Chicago Press p36-71 1989

Publication type: Research reviews and books

Full text: URL not available

Abstract: This research focuses on the different types of motivation in people. The study of motivation focuses on research in psychology; however it has implications for many professions, including teachers. The researchers hope to answer questions on the driving forces of motivation by reviewing recent research. The findings indicated that educational organizations are much like voluntary work organizations and their members are often intrinsically motivated to perform certain tasks while extrinsic rewards are generally not necessary to induce the performance of many desired behaviors.

Understanding Alternative Teacher Compensation

Author(s): USC California Policy Institute.

Source: Expert insights from USC California Policy Institute's California K-12 School Finance Policy Symposium, June 3, 2005. Research Synthesis: Education v2 2005

Publication type: Research reviews and books, Issue paper

Full text:

http://www.theteachingcommission.org/press/CPI_Education%20Teacher%20Compensation.pdf

Abstract: This paper reviews research on alternative compensation for teachers. This paper is derived from the California K-12 School Finance Policy Symposium and a roundtable discussion on the subject. The research review contended that the current method of compensative teachers, the single-salary schedule, is outmoded and not aligned to the goal of improving student achievement. The research finds that designing and implementing alternative systems is complex, however with careful planning, changes can be effectively made.

The Relationship between Teacher Evaluation Scores and Student Achievement: Evidence from Coventry, RI

Author(s): White, B.

Source: Madison, WI: University of Wisconsin-Madison, Consortium for Policy Research in Education April 2004

Publication type: State or regional reports, rigorous research

Full text: <http://www.wcer.wisc.edu/cpre/papers/CoventryAERA04.pdf>

Abstract: This report presents findings on the knowledge and skills based pay system for teachers in Coventry, RI. The researchers measure the relationship between teacher evaluation scores and student achievement. Using a similar methodology to a study of Cincinnati, the analysis uses value-added approach to looking at the data. The results of the study indicate a weak relationship between the teacher evaluation scores and student achievement in this school district.

Portfolios, the Pied Piper of Teacher Certification Assessments: Legal and Psychometric Issues

Author(s): Wilkerson, Joyce R., & Lang, William Steve

Source: Education Policy Analysis Archives v11 n45 Winter 2003

Publication type: State or Regional Reports

Full text: <http://epaa.asu.edu/epaa/v11n45/>

Abstract: This article discusses the legal implications and psychometric issues around using portfolios as assessments for teachers. Scenarios are presented that explore the legal issues that an institution might face should they use portfolios as the primary source for evaluating teachers. In the conclusion, requirements and caveats are discussed that assist institutions in determining if this is a route that they would like to pursue.

A Longitudinal Hierarchical Linear Model for Estimating School Effects and Their Stability

Author(s): Willms, D. J.; Raudenbush, S. W.

Source: Journal of Educational Measurement v26 p209-232 1989

Publication type: Rigorous research

Full text: URL not available

Abstract: This paper looks at a longitudinal model for estimating school effects. Previous research on the subject, as discussed in the paper, has indicated that the stability of school performance over successive years has produced inconsistent findings. This research looks at two different types of school effects and presents a model capable of separating true changes in school effects from sampling and measurement error. The paper also provides an example of the approach based on data on two cohorts of students from on Education Authority in Scotland.

Principal Evaluation

The Influence of Upward Feedback on Self- and Follower Ratings of Leadership

Author(s): Atwater, L.; Roush, P.; Fischthal, A.

Source: Personnel Psychology v48 p35-60 1995

Publication type: Rigorous Research

Full text: <http://web.ebscohost.com/ehost/pdf?vid=3&hid=20&sid=e5e754f1-5a79-4ec8-9430-315f0002a598%40SRCSM2>

Abstract: This article assesses the impact of positive feedback on self- and follower evaluation. Using data collected from subjects at the U.S. Naval Academy student leaders and followers (juniors and freshman, respectively). Followers were given surveys to determine the positive leadership behaviors. Regression analysis indicates that the feedback from the followers on leader performance led to improvements specific leader behaviors postfeedback. This study also explores the limitations of the study, and implications for future research.

Taking the Lead: One District's Approach to Principal Evaluation

Author(s): Brown, G.; Irby, B.; Neumeyer, C.

Source: NASSP Bulletin December 1998

Publication type: Issue Paper, State or Regional Reports

Full text: findarticles.com/p/articles/mi_qa3696/is_199812/ai_n8810822/print

Abstract: This article assesses changes made to the principal evaluation system in the Judson Independent School District (TX). Principals expressed concern that the evaluation system in place was not able to adequately assess the role of the principal. The Administrative Portfolio Appraisal System (APAS) was created in response to these concerns. Principals expressed a greater level of confidence in the new system and its ability to measure the many responsibilities of the principal.

Case Study of the Initiation of Standards-Based Principal Performance Evaluation in Washoe County School District

Author(s): Kimball, Steven M.

Source: Madison, WI: University of Wisconsin–Madison, Consortium for Policy Research in Education August 2006

Publication type: State or Regional Reports

Full text: http://cpre.wceruw.org/principal/washoe_prin_case.pdf

Abstract: This report details the performance based principal evaluation program implemented in Washoe County. Growing accountability demands, as well as dissatisfaction among principals with the existing system led to the need to create an evaluation system that better judged their performance. The new system was a substantial financial investment, while not requiring the major time investments of personnel. The article examines how the new system evaluates principals.

School Self-Evaluation and School Improvement: A Critique of Values and Procedures

Author(s): Kyriakides, L.; Campbell, R.J.

Source: Studies in Educational Evaluation v30 n1 p23-36 2004

Publication Type: Research reviews and books

Full Text: <http://elsevier.lib.tsinghua.edu.cn/cgi-bin/sciserv.pl?collection=journals&journal=0191491x&issue=v30i0001>

Abstract: This article reviews relevant literature existing on self-school evaluation to guide in the development of evaluations. This is used to create a blueprint of self-school evaluations, and what characteristics they should include.

Teacher Performance Pay: A Review

Author(s): Podgursky, Michael J.; Springer, Matthew G.

Source: Nashville: Vanderbilt University, National Center on Performance Incentives October 24, 2006

Publication type: Research review and books

Full text: URL not available

Abstract: This working paper examined the "economic case" for performance-related pay in K-12 education. The first part of the review was a history of compensation models from the grade-based model to the current single-salary schedule, currently ubiquitous in the U.S. educational system. The authors reviewed the theoretical arguments involving performance-related pay (e.g., performance, monitoring, team production) followed by a review of several performance-based programs in Denver, Texas, and Minnesota, as well as programs supported by the Milken Family Foundation, and the U.S. Department of Education's Teacher Incentive Fund. The paper concluded with a review of empirical research on performance-based pay. The authors concluded that the methodologies employed by empirical studies on performance-based pay were extremely diverse. Consequently, they were unable to draw any general conclusions from them. They recommended rigorous program evaluations of programs as they are implemented.

Audit of Principal Effectiveness: A Method for Self-Improvement

Author(s): Valentine, J.; Bowman, M.

Source: NASSP Bulletin v72 n508 p18-26 May 1988

Publication type: Issue paper

Full text: <http://bul.sagepub.com/cgi/content/abstract/72/508/18>

Abstract: This issue paper briefly discusses the measurement of principal effectiveness. In order to fulfill the leadership roles necessary, principals must consistently obtain appropriate feedback. The principal must, then, find methods to identify the feedback and analyze the data. This article discusses methods that can be used for principal evaluation that are effective.

A Longitudinal Hierarchical Linear Model for Estimating School Effects and Their Stability

Author(s): Willms, D. J.; Raudenbush, S. W.

Source: Journal of Educational Measurement v26 p209-232 1989

Publication type: Rigorous research

Full text: URL not available

Abstract: This paper looks at a longitudinal model for estimating school effects. Previous research on the subject, as discussed in the paper, has indicated that the stability of school

performance over successive years has produced inconsistent findings. This research looks at two different types of school effects and presents a model capable of separating true changes in school effects from sampling and measurement error. The paper also provides an example of the approach based on data on two cohorts of students from on Education Authority in Scotland.

Value-Added Assessment

Sizing Up Test Scores

Author(s): Ballou, D.

Source: Education Next v2 2002

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3365706.html>

Abstract: This article addresses the issues related to using testing for high-stakes purposes such as salary determinations. Three primary problems with testing are that testing are not reliable for accurately measuring students gains, there are outside factors that contribute to student gain scores that value-added systems are difficult to analyze and control for completely, and it is difficult to compare similar gain score and determine what they mean.

How and Why Money Matters: An Analysis of Alabama Schools

Author(s): Ferguson, Ronald F.; Ladd, Helen F.

Source: In H. F. Ladd (Ed.), *Holding Schools Accountable: Performance-Based Reform in Education* (pp. 265–298). Washington, D.C.: Brookings Institute

Publication type: Scientific Research, Rigorous Research

Full text: URL not available

Abstract: This study used value-added models to examine the relationship between school inputs and student outcomes in Alabama. Student-level models used data on 29,544 students in 690 schools, while district models used aggregated data from 127 school districts. Both the student-level and district-level analyses found that school inputs such as class size and teacher quality—as measured by teacher test scores and master’s degrees—appear to affect student test scores.

The Business Model

Author(s): Greene, Jay P.

Source: Education Next v2 Spring 2002

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3807061.html>

Abstract: This article focuses on the usefulness of value-added analysis in measuring accountability. While there are many arguments against the use of value-added analysis, this issue paper posits that the development of a value-added testing system might create a data pool that could improve

hiring systems, promotion of schools, and teacher compensation. The article also theorizes that value-added systems could improve the governing of schools and hold them accountable.

The Market for Teacher Quality

Author(s): Hanushek, Eric A.; Kain, John F.; O'Brien, Daniel M.; Rivkin, Steven G.

Source: National Bureau of Economic Research, Working Paper No. 11154 Winter 2005

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: <http://www.nber.org/papers/w11154.pdf>

Abstract: This study uses teacher administrative data and student assessment data from a large Texas school district to examine the recruitment and retention of teachers associated with large and small (value-added) improvements in student achievement. The authors find that there are large differences in teacher value-added. Teacher experience is linked to value-added, with first-year teachers having lower-than-average value-added that peaks in the fourth year of teaching and then levels off. The authors find that students learn more with teachers of their same race. Teachers generally leave after a poor year in student learning; however, these departing teachers are not necessarily poor teachers for a longer period of time. The authors also find that teachers remaining in the urban district are equally as effective as those that move from the urban district to suburban districts. They conclude by arguing that the main cost of teacher turnover is the introduction of inexperienced and low-performing teachers into the classroom.

Alternative Assessments of the Performance of Schools: Measurement of State Variations in Achievement

Author(s): Hanushek, Eric A.; Taylor, Lori L.

Source: The Journal of Human Resources v25 n2 p179–201 Spring 1990

Publication type: State or Regional Reports, Policy

Full text: URL not available

Abstract: This article looks at the evaluation of the efficacy of school policies by developing an approach to estimating marginal school effects at the state level. The researchers document the magnitude of biases introduced by common estimators of school quality. The research also estimates achievement growth, which is shown to be superior to other forms of alternative correction employed in research. The research rejects aggregate SAT scores as a measure of school quality, even when adjustments are made for demographic differences.

Techniques of Evaluation of Principals and Assistant Principals: Four Case Studies

Author(s): Redfern, G.

Source: NASSP Bulletin v70 n487 p66- 74 February 1986

Publication type: State or regional reports, Issue paper

Full text: <http://bul.sagepub.com/cgi/content/abstract/70/487/66>

Abstract: This report describes 4 evaluation programs used to evaluate principals and assistant principals. Both individual and comprehensive evaluations are designed using applicable

criterion on which to judge job performance. All evaluation systems rely heavily on evaluator judgments to accurately assess performance on the designed scale.

Value-Added Assessment and Systemic Reform: A Response to the Challenge of Human Capital Development

Author(s): Hershberg, Theodore

Source: Phi Delta Kappan v87 n4 p267–283 December 2005

Publication type: Issue Paper

Full text: <http://www.cgp.upenn.edu/pdf/Hershberg%20-%20Dec%2005%20-%20Phi%20Delta%20Kappan%20Article.pdf>

Abstract: This article offers a review of literature on value-added assessment and its role in school reforms. With the NCLB focus on improving student achievement for all, reform of the system as it was became necessary. The author posits that incentives at the federal level are necessary to encourage states to move in new directions, which includes value-added assessment as a tool to improve teacher quality and student achievement.

The Revelations of Value-Added

Author(s): Hershberg, Ted; Adams Simon, Virginia; Lea Kruger, Barbara

Source: The School Administrator p10–14 December 2004

Publication type: Issue Paper

Full text: <http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=1060&snItemNumber=950&tnItemNumber=1995>

Abstract: This article looks at what value-added assessment can contribute to education research and policy implementation. The authors posit that his tool can be useful in isolating and measuring the impact of instruction on student learning and providing useful information at the classroom level. The article mentions current use of value-added assessments in various states and points to implications of the system's usefulness in the future.

Measuring What Matters: How Value-Added Assessment Can Be Used to Drive Learning Gains

Author(s): Hershberg, T.; Adams Simon, V.; Lea-Kruger, B.

Source: American School Board Journal February 2004

Publication type: Issue Paper

Full text: http://www.cgp.upenn.edu/pdf/measuring_what_matters.pdf

Abstract: This article looks at value-added assessment and discusses both the strengths and weaknesses of using this tool in accountability measurement. This form of assessment is considered by the authors as a solid approach, statistically speaking, and can be used as a powerful diagnostic tool in predicting student progress. Value-added may also help schools with achievement of NCLB goals. The authors continue to offer some recommendations to policymakers on the use of value-added assessment.

Enemy of the Good

Author(s): McAdams, Donald R.

Source: Education Next v2 Spring 2002

Publication type: Issue paper

Full text: <http://www.hoover.org/publications/ednext/3366011.html>

Abstract: This brief article discusses the usefulness of high-stake standardized tests in measuring school improvement, despite its many faults. While not able to measure school improvement perfectly, testing that is aligned with performance and content standards can be very effective in value-added measurements.

Evaluating Value-Added Models for Teacher Accountability

Author(s): McCaffrey, D.F.; Lockwood, J.R.; Koretz, D.M.; Hamilton, L.S.

Source: Santa Monica, CA: RAND Corporation 2003

Publication type: Issue Paper

Full text: http://www.rand.org/pubs/monographs/2004/RAND_MG158.pdf

Abstract: This monograph provides a comprehensive overview of value-added modeling (VAM) by discussing the critical issues and question about VAM, reviewing existing literature, and examining existing VAM efforts. VAM models must account for the potential bias and measurement error in attempts to measure teacher-effects. Using value-added models for high-stakes decisions is cannot be supported by the limited research base. It is recommended that for lower-stakes purposes, value-added models could be used as a component of a more throughout review of teacher effect. Implications for VAM are also discussed.

Value-Added Indicators: A Powerful Tool for Evaluating Science and Mathematics Programs and Policies

Author(s): Meyer, Robert H.

Source: Issue Brief, 3(3). Madison: University of Wisconsin, National Institute for Science Education 2000

Publication type: Issue paper

Full text:

http://www.wcer.wisc.edu/archive/NISE/Publications/Briefs/Vol_3_No_3/Vol%203,%20No%203.pdf

Abstract: This brief article discusses the misuse of average and median test scores as indicators of school performance. Using these test scores to measure school performance has four major flaws: test score data does not analyze performance on the classroom and grade level, the aggregated information on performance is out-of-date, test score data is affected by student mobility, and test score data fails to separate the direct impact of school programs on student achievement from the impact of outside factors that also impact student achievement. Value-added models are a more effective way of measuring school performance, because they

statistically account differences across school, and avoid the issues of using average and median test scores.

Value-Added Indicators of School Performance

Author(s): Meyer, Robert H.

Source: In Eric A. Hanushek, and Dale W. Jorgenson, (Eds.), *Improving America's schools: The role of incentives*. Washington, DC: National Academy Press, p197-223 1996

Publication type: research reviews and books

Full text: URL not available

Abstract: This article takes a detailed look at the value-added model as an indicator for student performance. With an increased use of educational outcome indicators in assessing school and teacher effectiveness, it is important to understand the attributes of a valid performance indicator system. This article prepares the reader to understand this.

The Criterion-Related Validity of the Performance Assessment System in Cincinnati

Author(s): Milanowski, Anthony

Source: Working Paper TC-03-07. Presented at the annual meeting of the American Educational Research Association, Chicago. Madison, WI: Univ. of Wisconsin-Madison, Wisconsin Center for Education Research, Consortium for Policy Research in Education March 2003

Publication type: Scientific Research, State or Regional Reports, Policy, Issue Paper

Full text: URL not available

Abstract: This paper presented the results of an analysis of the relationship among teachers' evaluation scores and student achievement. This was an exploration of the feasibility of linking teacher compensation on student achievement. The author analyzed reading, math, and science test scores from two consecutive years for students in grades 3 through 8. The student achievement tests were either the district test, state proficiency test, or for one year the Terra Nova test. The state proficiency test was based on student content standards and had four score ranges: below basic, basic, proficient, and advanced. The district tests covered similar content. The teacher evaluations were in four domains (e.g., planning and preparation, creating an environment for learning, teaching for learning, and professionalism). The results showed that the teacher evaluation system had a moderate degree of criterion-related validity. The results suggest that a teacher evaluation system is able to identify teachers with students who achieved higher than expected achievement.

The Varieties of Knowledge and Skill-based Pay Design: A Comparison of Seven New Pay Systems for K-12 Teachers

Author(s): Milanowski, Anthony

Source: Education Policy Analysis Archives v11 n4 January 29, 2003

Publication type: Research reviews and books, Policy

Full text: URL not available

Abstract: This article described qualitative research on seven "pioneer" knowledge and skills-based pay programs. A theory of action, which linked teacher motivation, type of incentives, and other factors to student achievement, guided the study. First, the author discussed the advantages of knowledge and skills-based pay programs. Second, he developed seven dimensions to structure the analysis and comparison of the programs, including motivation for program development, the design process, types and structures of reward, assessment of skills acquisition, size and structure of knowledge and skills incentives, alignment of other human resource programs, and cost and funding. Third, case study site visits of six school districts and one-charter school informed and supported the analysis a cross-site analysis. The results showed that although the districts had different reasons for implementing the skills-based pay systems, the author identified several lessons learned: (1) the programs retained seniority and degrees as factors for pay increases, (2) teachers' associations did not summarily dismiss changes in the pay structure, (3) the use of pre-existing standards will facilitate adoption of a new pay system, and (4) the transition to a knowledge and skills-based pay system can be low-cost.

Grading Teachers, Grading Schools

Author(s): Millman, J.

Source: Thousand Oaks, CA: Corwin 1997

Publication type: Research reviews and books

Full text: URL not available

Abstract: This book highlights 4 incentive programs implemented in different locations across the country. Oregon's Teacher Work Sample Methodology (TWSM), the Dallas Value-Added Accountability System, the Kentucky Instructional Results Information System, and the Tennessee Value-Added Assessment System (TVAAS) are discussed and in an attempt to explore the ability of these system in their measurement of student achievement, that criterion validity that exists in there systems, and the effectiveness of these system to improve both teaching and learning.

The Relationship Between Teacher Performance Evaluation Scores and Student Achievement: Evidence From Cincinnati

Author(s): Milanowski, Anthony

Source: Peabody Journal of Education, v79 n4 p33–53 2004

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: The author examines the relationship between teacher evaluation scores in the Cincinnati public school district, which has a rigorous, standards-based teacher evaluation system and a value-added measure of student achievement. The teacher assessment system was based on a set of teaching standards derived from the framework for teaching. Sixteen performance standards were grouped into four domains: planning and preparation, creating a learning environment, teaching for learning, and professionalism. Each standard has a set of behaviorally anchored rating scales described in four levels: unsatisfactory, basic, proficient, and distinguished. Teachers were evaluated based on six classroom observations and a portfolio.

Student achievement was assessed from student test scores from the district and state for students in Grades 3–8 in reading, mathematics, and science. A two-level, hierarchical linear model was used to study the relationship between teacher evaluation scores and student achievement, controlling for extraneous variables of teacher and student characteristics. Small to moderate positive correlations were found for most grades in each subject tested. The results showed that scores from a rigorous teacher evaluation system can be related substantially to student achievement and provide criterion-related validity evidence for the use of performance-evaluation scores as the basis for a performance-based pay system for teachers.

Teacher Performance Pay: A Review

Author(s): Podgursky, Michael J.; Springer, Matthew G.

Source: Nashville: Vanderbilt University, National Center on Performance Incentives October 24, 2006

Publication type: Research review and books

Full text: URL not available

Abstract: This working paper examined the "economic case" for performance-related pay in K-12 education. The first part of the review was a history of compensation models from the grade-based model to the current single-salary schedule, currently ubiquitous in the U.S. educational system. The authors reviewed the theoretical arguments involving performance-related pay (e.g., performance, monitoring, team production) followed by a review of several performance-based programs in Denver, Texas, and Minnesota, as well as programs supported by the Milken Family Foundation, and the U.S. Department of Education's Teacher Incentive Fund. The paper concluded with a review of empirical research on performance-based pay. The authors concluded that the methodologies employed by empirical studies on performance-based pay were extremely diverse. Consequently, they were unable to draw any general conclusions from them. They recommended rigorous program evaluations of programs as they are implemented.

Advances in Teacher Assessments and Their Uses

Author(s): Porter, Andrew C.; Youngs, Peter; Odden, Allan

Source: Handbook on Research and Teaching (2nd ed.) Virginia Richardson (Ed.) 2000

Publication type: National Reports, In the Spotlight

Full text: URL not available

Abstract: The authors present a comprehensive overview of the many components of teacher assessment. They begin with a brief discussion documenting the various available teacher assessments, their purposes, and the processes around development, administration, and measurement of the tests. The authors then share information about recent developments around performance-based assessments, such as Praxis and National Board assessments. The information includes purposes, development, similarities and differences, and some technical aspects of the tests. They then present a summary of studies regarding psychometric issues of the tests. At the state level, the authors provide information about the implementation of these teacher assessments in both Connecticut and California. They do the same at the local level for Cincinnati, Ohio, and Rochester, New York. The report concludes with a brief description of the

Tennessee Value-Added Assessment System and examples of using assessments for teacher compensation.

Value-Added Achievement Results for Two Cohorts of Co-NECT Schools in Memphis: 1995–1999 Outcomes

Author(s): Ross, S.M.; Sanders, W.L.; Wright, S.P.

Source: University of Memphis and University of Tennessee July 2000

Publication type: Scientific Research, State or Regional Reports

Full text: <http://www.sas.com/govedu/edu/conect.pdf>

Abstract: This report examines the progress of 22 schools in Memphis who implemented the Roots and Wings [comprehensive school reform] design; as compared with 23 schools that did not implement the design (control schools). Student achievement data from all schools was assessed using five subjects on the TerraNova and value-added scores from the Tennessee Value-Added Assessment System (TVAAS) during the range of spring 1995 to spring 1999. The five year findings support the effects of Roots and Wings schools in increasing gains in academic achievement, with an average pre- to post-reform gain of about 20 points higher than control schools.

Value-Added Assessment from Student Achievement Data: Opportunities and Hurdles

Author(s): Sanders, William L.

Source: Journal of Personnel Evaluation in Education v14 n4 p329–339 2000

Publication type: Issue Paper

Full text: http://www.sas.com/govedu/edu/opp_hurdles.pdf

Abstract: How can the level of academic achievement of all students be raised? How can the responsibility for their success or failure be appropriately attributed to schools, districts, teachers, and students? This presentation—given at the Create National Evaluation Institute on July 21, 2000, and printed in the *Journal of Personnel Evaluation in Education*—the author attempts to answer these questions by summarizing the attempts made by the educational assessment field to develop various methods of analyzing student test data. Sanders also examines the criticisms of value-added assessments, in particular, and all assessment that rely on student test data, in general.

Research Findings from the Tennessee Value-Added Assessment System (TVAAS) Database: Implications for Educational Evaluation and Research

Author(s): Sanders, William L.; Horn, Sandra P.

Source: University of Tennessee Value-Added Research and Assessment Center 1998

Publication type: Research Reviews and Books

Full text: http://www.sas.com/govedu/edu/ed_eval.pdf

Abstract: The Tennessee Value-Added Assessment System tracks student academic growth overtime to determine the effectiveness of school systems, schools, and teachers. A longitudinally merged database that links students to the schools in which they are enrolled and to the teachers they are assigned as they transition from grade to grade is a fundamental

component of TVAAS. An effective teacher is a significant determinant of student academic progress, making the link between teacher effectiveness and student outcomes necessary for any effective educational evaluation system. This article discusses the research findings extracted from the TVAAS to explore the level of effect various factors have on the academic gains of students, including school building changes; race socioeconomic status; and teachers.

The Tennessee Value-Added Assessment System (TVAAS): Mixed-Model Methodology in Educational Assessment

Author(s): Sanders, William L.; Horn, Sandra P.

Source: Journal of Personnel Evaluation in Education v8 p299–311 1994

Publication type: State or Regional Reports, Issue Paper

Full text: http://www.sas.com/govedu/edu/mixed_model.pdf

Abstract: The Tennessee Value-Added Assessment System (TVAAS), a statewide accountability system, was an integral part of the state's 1991 Education Improvement Act and continues its prominence in the state today. This journal article describes the TVAAS—a statistical process that measures the influence of school systems, schools, and teachers on indicators of student learning. The authors also address the challenge of using student achievement data in educational assessment and describe how these can be overcome by using a mixed-model methodology on which TVASS relies.

A Summary of Conclusions Drawn from Longitudinal Analyses of Student Achievement Data over the Past 22 Years (1982–2004)

Author(s): Sanders, William L.

Source: Paper presented to the Governors Education Symposium, Asheville, North Carolina June 10–13, 2004

Publication type: Issue Paper

Full text: http://www.sas.com/govedu/edu/hunt_summary.pdf

Abstract: This presentation states that data extracted from standardized testing of students in public schools has been used for very narrow purposes. Beyond comparing the achievement levels of students, this data can be invaluable to education decisions makers. The author concludes that value-added assessment—following a student's academic progress over time—allows an objective measure of the influence of the district, school, and teacher on the rate of academic progress.

Expert Measures

Author(s): Summers, Anita A.

Source: Education Next v2 Spring 2002

Publication type: Issue Paper

Full text: <http://www.hoover.org/publications/ednext/3365791.html>

Abstract: Value-added analyses of state test results do not always provide an accurate picture of teacher effectiveness. Summers argues that while errors associated with Value-added assessment can be clearly identified, these assessments overemphasize the random error associated with

measuring student performance. Summers suggests that a more effective way of measuring teacher effectiveness would be to use more subjective criteria to evaluate teachers, or to establish specific thresholds of student achievement that define adequate performance.

Understanding Alternative Teacher Compensation

Author(s): USC California Policy Institute.

Source: Expert insights from USC California Policy Institute's California K-12 School Finance Policy Symposium, June 3, 2005. Research Synthesis: Education v2 2005

Publication type: Research reviews and books, Issue paper

Full text:

http://www.theteachingcommission.org/press/CPI_Education%20Teacher%20Compensation.pdf

Abstract: This paper reviews research on alternative compensation for teachers. This paper is derived from the California K-12 School Finance Policy Symposium and a roundtable discussion on the subject. The research review contended that the current method of compensative teachers, the single-salary schedule, is outmoded and not aligned to the goal of improving student achievement. The research finds that designing and implementing alternative systems is complex, however with careful planning, changes can be effectively made.

The Relationship between Teacher Evaluation Scores and Student Achievement: Evidence from Coventry, RI

Author(s): White, B.

Source: Madison, WI: University of Wisconsin-Madison, Consortium for Policy Research in Education April 2004

Publication type: State or regional reports, rigorous research

Full text: <http://www.wcer.wisc.edu/cpre/papers/CoventryAERA04.pdf>

Abstract: This report presents findings on the knowledge and skills based pay system for teachers in Coventry, RI. The researchers measure the relationship between teacher evaluation scores and student achievement. Using a similar methodology to a study of Cincinnati, the analysis uses value-added approach to looking at the data. The results of the study indicate a weak relationship between the teacher evaluation scores and student achievement in this school district.

Teacher and Classroom Context Effects on Student Achievement: Implications for Teacher Evaluation

Author(s): Wright, S.P.; Horn, S.P.; Sanders, W.L.

Source: Journal of Personnel Evaluation in Education v11 p57-67 1997

Publication type: State or regional reports, Rigorous research

Full text: http://www.sas.com/govedu/edu/teacher_eval.pdf

Abstract: This article examines the impact of teacher effects on student achievement in Tennessee, following the value-added system. The results of the study indicate that teacher

effects are a strong factor affecting student achievement in the Tennessee schools, in comparison to classroom context variables which showed little influence on academic gain. This study shows that teachers make a difference with students, which has implications for teaching evaluation and future research.

Data Systems

Developing Requirements for Data Warehouse Systems with Use Cases

Author(s): Bruckner, R. M., List, B., & Schiefer, J.

Source: Proceedings of the seventh Americas conference on information systems (AMCIS 2001), Boston, Massachusetts, USA, 329–335. Retrieved July 7, 2006. (2001).

Publication type: Issue Paper

Full text: http://www.ifs.tuwien.ac.at/~bruckner/pubs/amcis2001_requirements.pdf

Abstract: This paper examines data warehouse systems and how they can be used to enhance connections between all levels of an organizational structure. In the development of a data warehouse system, there are three levels of abstraction to be considered: business/organizational level, user level, and detailed system requirements. In data system, there are requirements of the system specific to each level.

Data Analysis in Administrators' Hands: An Oxymoron?

Author(s): Creighton, T.B.

Source: The School Administrator v58 n4 p6–11 April 2001a

Publication type: Issue Paper

Full text: <http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=3757>

Abstract: This article focuses on data analysis and how it can be used in the world of education. School administrators may be able to use simple statistics to discover relationships between school factors and student achievement. Schools can use data, instead of supposition, and make decisions based on the needs of the district. This has implications for administration and instructional leadership.

Developing a Technology Infrastructure to Support a High-Stakes Teacher Performance Assessment Program

Author(s): Muenzen, Patricia M.

Source: Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA Spring 2001

Publication type: State or Regional Reports

Full text: URL not available

Abstract: Connecticut is the first state to implement mandatory portfolio assessment as a component of its teacher certification program known as the Beginning Educator Support and Training (BEST) program. The program is a three-year induction process that includes both support (mentorship from an experienced teacher and attendance at professional development seminars) and assessment (subject-specific portfolio). The Connecticut Educator Database was developed to handle the information related to implementing the BEST program. This article describes the development of this database system and the strategies used to manage various kinds of information in the BEST program.

Building Employee, Union, and Community Support

Negotiating a Local Pay for Performance Program Encouraged by State Mandate

Author(s): Conley, Sharon C.; Gould, Jewell; Muncey, Donna E.; White, Noel

Source: Journal of Personnel Evaluation in Education v15 n2 p137–148 Summer 2001

Publication type: Scientific Research, State or Regional Reports

Full text: URL not available

Abstract: The article describes the Brevard County's pay-for-performance program, which is a new teacher compensation strategy that incorporated individual and group performance-based pay and knowledge- and skills-based pay. Teachers voluntarily participated in the program by proposing a plan for how they would satisfy the particular requirements in either the student achievement or the professional development categories. Among 1,500 teachers who participated in the program in the first year, the majority chose the option of improving their students' test scores, with many teachers participating in both options and many choosing to work in groups. The authors conducted interviews with union negotiators in Brevard County, Florida, in 1999 as part of a larger study of alternative pay systems in American Federation of Teachers sites. The authors summarized many important features of successful alternative compensation efforts including no loss in pay. The alternative compensation systems should give teachers options for earning additional pay as opposed to providing only one pay choice. Recognition of members' different needs and interests in the plan is also important. Negotiators also should consider balancing compensation awards that are determined externally with locally determined awards. Finally, there must be cooperation and trust between union and management for compensation change to happen.

Quantity Over Quality

Author(s): Lakdawalla, Darius

Source: Education Next v3 Summer 2002

Publication type: Issue paper

Full Text: <http://www.hoover.org/publications/ednext/3365326.html>

Abstract: This brief article looks at declining quality of teachers, reduction in class size, and the increase in the per pupil spending, and traces that decline to the increase in demand for high quality employee outside of education. Lakdawalla argues that while the quality of teachers is declining, the impact on students cannot be directly linked to that decline. Changing market conditions lead to the redistribution of educational inputs within a system to possibly offset the decline.

Financing Schools for High Performance: Strategies for Improving the Use of Educational Resources

Author(s): Odden, Allan R.; Busch, C.

Source: San Francisco, CA: Jossey-Bass Publishers 1998

Publication type: research reviews and books

Full text: URL not available

Abstract: This book is a discussion of the need for money in improving achievement at the school and district level. This book also details the distribution of the 'education dollar' historically, and how the distribution of monies can be done more fairly, and how the the education dollar can be used to have a greater impact. The book concludes by presenting alternatives to current funding systems.

School Reform, TURN, and Teacher Compensation

Author(s): Urbanski, Adam; Erskine, Roger

Source: Phi Delta Kappan v81 n5 p367–370 Winter 2000

Publication type: State or Regional Reports

Full text: <http://www.pdkintl.org/kappan/kurb0001.htm>

Abstract: This article discusses the critical roles of the Teacher Union Reform Network (TURN) in school reform and teacher compensation. The authors clarify the goals of TURN, including improving professional development by creating new roles for unions, sharing successful strategies, influencing teacher preparation, and setting standards for unions and for labor and management relations. The authors describe the three TURN subcommittees: professional development, preservice education, and compensation redesign. The authors present an overview of innovations in teacher compensation structure. Two compensation plans are explored: school-based performance award programs and knowledge- and skills-based pay systems. Although innovative compensation systems have been implemented successfully in many districts, some changes continue to face resistance. The authors suggest that labor and management relations and the culture of schools must change in response to current educational conditions. The innovations in teacher compensation that have been brought about in TURN districts serve as examples of how changes can happen with collaborative partnerships.

Case Studies

States

Diversifying Teacher Compensation

Author(s): Azordegan, J.; Byrnett, P.; Campbell, K.; Greenman, J.; Coulter, T.

Source: Denver: Education Commission of the States December 2005

Publication type: Issue Paper

Full text: <http://www.ecs.org/clearinghouse/65/83/6583.pdf>

Abstract: This report details state efforts to reform teacher compensation since 1995, including revisiting past pay-for-performance programs. Reform efforts were placed within 3 frameworks: Maintaining current systems while dedicating state funds to bonuses for teachers based on student achievement, teacher incentive programs, and pilot programs completely dedicated to linking pay to student performance. Azordegan discusses Minnesota's 'Quality Compensation' plan as an alternative compensation system.

Pay for Performance: More States Brave Teacher-Pay Debate

Author(s): Delisio, Ellen R.

Source: Education World January 30, 2003

Publication type: Issue Paper

Full text: http://www.educationworld.com/a_issues/issues/issues374d.shtml

Abstract: This article discusses the new policies and programs related to pay for performance that states are engaging in. The examples in the article are of new programs in Arizona, Florida, Iowa, and Kentucky. These programs all focus on teachers working together to improve student achievement as a side bonus to the compensation reform.

Focus on Teacher Salaries: Recent Actions in the SREB States

Author(s): Gaines, Gale F.

Source: Southern Regional Education Board October 2003

Publication type: Issue Paper, State or Regional report

Full text: http://www.sreb.org/scripts/Focus/Reports/Teacher_Salaries_9_2003.pdf

Abstract: This article focuses on recent actions taken on reforming teacher salaries in states that are members of the Southern Regional Education Board. Teacher compensation has become an indicator for progress in education. Recently, many states have taken action to increase teacher pay through diverse plans. Some states opt to increase pay over time for all teachers, other states have legislated on employee benefits, while still other states focus on performance pay for teachers.

Dollars and Sense

Author(s): Keys, Benjamin J.; Dee, Thomas S.
Source: Education Next v1 Winter 2005
Publication type: Issue Paper
Full text: <http://www.hoover.org/publications/ednext/3258651.html>

Abstract: Merit-pay programs implemented in Tennessee were designed as career ladders. The career ladder programs were designed to reward teacher performance while not basing rewards on student achievement. These programs delivered mixed results among teachers. Teachers who participated in the career ladder program saw higher gains in performance of their students versus teachers who did not.

School-based Performance Award Programs and Teacher Motivation

Author(s): Milanowski, Anthony
Source: Journal of Education Finance v25 n4 p517-544 Spring 2000
Publication type: Scientific Research
Full text: URL not available

Abstract: This article summarized the results of a qualitative study that examined school-based performance award programs in North Carolina, Kentucky, and Maryland. Expectancy theory guided the design of the study and the interpretation of the results. The NC and KY programs rewarded teachers and the program in Maryland put funds into an account for programs. The results showed that the bonus was as desirable as the intrinsic rewards of teaching (e.g., personal satisfaction from a student's achievement). Teachers did not believe that the bonuses would be awarded (because a previous one had not been given) and that the amount was too small. The teachers also reported increased stress trying to meet performance goals. Additionally, a proportion of the teachers did not believe that the performance goals could be met. The author also examined the effectiveness of sanctions (e.g., loss of pride or loss of job security) on teacher motivation, and found that in Kentucky loss of pride was more of a motivating factor than loss of job security. (The teachers in Maryland were unaware of the program had little knowledge of the program.) The article concluded with recommendations for school-based performance awards: (1) provide support to increase teacher's expectancy, (2) make a strong connection between rewards and school performance, (3) the size of the award needs to be large enough to matter, (4) principals need to provide active support for the program, and (5) design the program in a way that teachers perceive as fair.

Assessing Assessments of School Performance: The Case of California

Author(s): Tobias, J.
Source: American Statistician v58 n1 p55-63 2004
Publication type: State or regional reports, rigorous research
Full text: URL not available

Abstract: This articles looks at data from California, using data from the Academic Performance Index. The goal is to assess California's public schools. This article investigates the rule used by the state which defines awards eligibility and determines if the rule consistently rewards

schools that are performing better than expected. The researchers also introduce a hierarchical model to determine the school districts and counties that demonstrated the best performance over the 2000-2001 school-year. The findings indicate that there was significant variation in performance at these levels and found that the states rule may have a negative effect on high achieving schools.

Teacher and Classroom Context Effects on Student Achievement: Implications for Teacher Evaluation

Author(s): Wright, S.P.; Horn, S.P.; Sanders, W.L.

Source: Journal of Personnel Evaluation in Education v11 p57-67 1997

Publication type: State or regional reports, Rigorous research

Full text: http://www.sas.com/govedu/edu/teacher_eval.pdf

Abstract: This article examines the impact of teacher effects on student achievement in Tennessee, following the value-added system. The results of the study indicate that teacher effects are a strong factor affecting student achievement in the Tennessee schools, in comparison to classroom context variables which showed little influence on academic gain. This study shows that teachers make a difference with students, which has implications for teaching evaluation and future research.

Districts

Diversifying Teacher Compensation

Author(s): Azordegan, J.; Byrnett, P.; Campbell, K.; Greenman, J.; Coulter, T.

Source: Denver: Education Commission of the States December 2005

Publication type: Issue Paper

Full text: <http://www.ecs.org/clearinghouse/65/83/6583.pdf>

Abstract: This report details state efforts to reform teacher compensation since 1995, including revisiting past pay-for-performance programs. Reform efforts were placed within 3 frameworks: Maintaining current systems while dedicating state funds to bonuses for teachers based on student achievement, teacher incentive programs, and pilot programs completely dedicated to linking pay to student performance. Azordegan discusses Minnesota's 'Quality Compensation' plan as an alternative compensation system.

Evaluation of Year One of the Achievement Challenge Pilot Project in the Little Rock Public School District

Author(s): Barnett, Joshua H.; Ritter, Gary W.; Winters, Marcus A.; Greene, Jay P.

Source: Department of Education Reform, University of Arkansas January 2007

Publication type: Rigorous Research, State or Regional Reports

Full text: http://www.uark.edu/ua/der/Research/merit_pay.html#full_text

Abstract: This report evaluates Year 1 of the Achievement Challenge Pilot Project (ACPP) merit pay program in the Little Rock (AR) School District. Relying on data collected from the District as well as teacher surveys, it was found that students in schools where the pilot program was operating showed improvement in mathematics test scores. Teachers who participated in the pilot program were found to be more satisfied with their salaries than teachers who did not participate in the program. Teachers in the pilot program were no more innovative, likely to work, or counterproductive than teachers not in the program.

Pay for Performance: What Went Wrong in Cincinnati?

Author(s): Delisio, Ellen R.

Source: Education World January 28, 2003

Publication type: Issue Paper

Full text: http://www.educationworld.com/a_issues/issues/issues374b.shtml

Abstract: In this issue paper, the Cincinnati compensation reform is discussed. The district was ready to implement the reform; however the teachers union failed to approve the program. The plan focused on education levels of teachers, classroom observations, and evaluations as determinants for performance compensation. There were still doubts, however, about the fairness of the evaluation and the difficulties in transitioning the pay system, ultimately leading to the failure of the program to be launched.

Pay for Performance: What Are the Issues?

Author(s): Delisio, Ellen R.

Source: Education World January 27, 2003 Updated January 30, 2006

Publication type: Issue Paper

Full text: http://www.educationworld.com/a_issues/issues/issues374a.shtml

Abstract: Reforms to the traditional pay system for teachers are becoming more common. This article discusses the alternative proposals that have gained national attention. Many districts are moving toward one of many types of performance pay for teachers. Advocates of the programs say that they will help attract and retain teachers. The article indicates, however, that there are still flaws to this reform to be addressed by research.

ProComp: Denver Public Schools Professional Compensation System for Teachers

Author(s): Denver Public Schools

Source: Denver Public Schools June 2005

Publication type: State or Regional Reports

Full text: <http://denverprocomp.org/generalinformation>

Abstract: ProComp is a compensation system that links teacher pay to the school district's instructional mission. Designed in a partnership between the Denver Classroom Teachers Association and Denver Public Schools, ProComp has received national attention because it rewards teachers for their professional accomplishments while linking pay to student

achievement. ProComp promotes improved student achievement by rewarding teachers with bonuses and salary increases for improved student performance and encouraging talented teachers to work in schools and assignments with the greatest needs.

Teacher Objective-Setting and Monitoring Process

Author(s): Denver Public School

Source: Denver Public School Report, August 2004

Publication type: State or Regional Reports

Full text: URL not available

Abstract: In spring 2004, the Denver Public Schools' Board of Education and the Denver Classroom Teachers Association ratified a labor agreement instituting the Professional Compensation Systems for Teachers (ProComp). ProComp is a compensation system in which teachers are rewarded throughout their careers for their professional accomplishments. ProComp pays teachers for demonstrated accomplishment in four areas: student growth, knowledge and skills, professional evaluation, and market incentives. The issues addressed by ProComp are central to the mission of Denver Public Schools. This report focuses on student growth as measured in the objective-setting and monitoring system. The teacher objective-setting and monitoring process is a collaborative procedure in which the principal and teacher set expectations for growth in student learning and monitor progress toward those expectations. This report provides guiding principles for the objective-setting and monitoring process. It also provides examples of the process in a studio course, connected mathematics, and cognitive tutor algebra.

Individual Teacher Incentives and Student Performance

Author(s): Figlio, David N.; Kenny, Lawrence W.

Source: National Bureau of Economic Research, NBER Working Paper No. W12627, October 2006

Publication type: Rigorous Research

Full text: <http://pcsi.go.kr/files/w12627.pdf>

Abstract: This article focuses on the relationship between teacher performance and student achievement, at an individual level. Using existing national data sources along with a survey of teachers, the study finds that test scores are higher in schools that offer individual financial incentives for performance. The relationship between the presence of merit pay and student achievement was found to be strongest in schools that had the least parental oversight. This article has significant policy implications for future compensation reform.

Options for Studying Teacher Pay Reform Using Natural Experiments

Author(s): Glazerman, S.; Silva, T.; Addy, N.; Avellar, S.; Max, J.; McKie, A.; Natzke, B.; Puma, M.; Wolf, P.; Ungerer Greszler, R.

Source: Washington, DC: Mathematica Policy Research, Inc. March 2006

Publication type: Policy

Full text: <http://www.mathematica-mpr.com/publications/pdfs/teacherpayreform.pdf>

Abstract: This article details the potential studies that can be undertaken on teacher incentive programs throughout the nation. There are various approaches to teacher incentive pay and conducting a rigorous study of teacher pay reform is a challenge. This report detailed potential case studies for researching seven different incentive pay programs in different states and presents recommendations on how secondary data could be used to study these programs. The report also highlights issues regarding sample size adequacy, cost, and other factors to consider when planning a rigorous research project such as this.

A Case Study of the Charlotte-Mecklenburg Public Schools School-Based Performance Award Program

Author(s): Johnson, A.; Potter, P.; Pughsley, J.; Wallace, C.; Kellor, E.; Odden, A.

Source: Madison, WI: University of Wisconsin–Madison, Wisconsin Center for Education Research 1999

Publication type: State or Regional Reports

Full text: <http://www.wcer.wisc.edu/cpre/papers/Charlotte-Mecklenburg%20SBPA%204-99.pdf>

Abstract: This report details the history of the pay-for-performance program in Charlotte-Mecklenburg County. The initial plan evolved into a school-based performance award program rewarding individual and group improvements.

Douglas County Colorado Performance Pay Plan

Author(s): Kelley, Carolyn

Source: Madison, WI: Consortium for Policy Research in Education 2000

Publication type: State or Regional Reports

Full text: <http://wcer.wisc.edu/cpre/papers/pdf/Douglas%20SBPA%205-00.pdf>

Abstract: This article details the history of the pay for performance program implemented in Douglas County, Colorado in 1994. This program was developed in the height of a population boom in the county, at a time where there was growing desire to implement such a system. The program would remove the single salary schedule and reward teachers based on skill. The article looks at changes made to the program over time, in order to focus on the strong aspects of the program, such as promoting teacher skill development and group collaboration.

School-Based Performance Award Programs, Teacher Motivation, and School Performance: Findings from a Study of Three Programs

Author(s): Kelley, Carolyn; Heneman, Herbert, III; Milanowski, Anthony T.

Source: Philadelphia: University of Pennsylvania, Graduate School of Education, Consortium for Policy Research in Education April 2000

Publication type: Policy, Rigorous Research, State or Regional Reports

Full text: <http://www.cpre.org/Publications/rr44.pdf>

Abstract: This study looks school-based performance award programs and their impact on student performance. The implementation of these programs has had a positive impact on student performance. Using survey data, Kelley describes the benefits of increased expectations, and how individual and group motivation impacts the teacher. The article goes on to examine principal reactions to expectancy changes.

Case Study of the Initiation of Standards-Based Principal Performance Evaluation in Washoe County School District

Author(s): Kimball, Steven M.

Source: Madison, WI: University of Wisconsin–Madison, Consortium for Policy Research in Education August 2006

Publication type: State or Regional Reports

Full text: http://cpre.wceruw.org/principal/washoe_prin_case.pdf

Abstract: This report details the performance based principal evaluation program implemented in Washoe County. Growing accountability demands, as well as dissatisfaction among principals with the existing system led to the need to create an evaluation system that better judged their performance. The new system was a substantial financial investment, while not requiring the major time investments of personnel. The article examines how the new system evaluates principals.

Examining the Relationship Between Teacher Evaluation and Student Assessment Results in Washoe County

Author(s): Kimball, Steven M.; White, Brad; Milanowski, Anthony T.; Borman, Geoffrey

Source: Peabody Journal of Education v79 n4 p54–78 2004

Publication type: Scientific Research, Rigorous Research, State or Regional Reports

Full text: URL not available

Abstract: In the search for adequate measures of teacher effect on student achievement, teacher performance assessment results could be considered one possible alternative if the evaluation scores can be shown to be valid measures of teaching practice and to have the expected positive relationship to student achievement. The authors analyzed the relationship between scores on a standards-based teacher evaluation system and student achievement measures in Nevada's Washoe County School District (WCSD). The WCSD developed a new teacher evaluation system designed to measure four domains of teaching practice: planning and preparation, classroom environment, instruction, and professional responsibilities. Each domain has a number of teaching components, and every component has several elements. Each element includes separate behavioral descriptions on a four-level rubric scale: unsatisfactory, target for growth, proficient, and area of strength. There are 23 components of professional practice and 68 elements in the WCSD system. Student achievement was assessed with several measures including results from district, state, and national norm-referenced tests for third-, fourth-, and fifth-grade students in mathematics and reading. The two-level regression model was used to study the relationship between teacher evaluation scores and student achievement, controlling for

the effects of other student and teacher characteristics. Positive relationships between teacher evaluation scores and student achievement were demonstrated, but not for all cases.

Linking Teacher Pay to Student Scores

Author(s): LaFee, Scott

Source: The School Administrator October 2000

Publication type: State or Regional Reports, Issue Paper

Full text: <http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=4158>

Abstract: This article addresses the Colonial School District (Plymouth Meeting, PA) voting to create a merit-pay system, and the opposition faced in implementing that system. LaFee looks at the struggles between the local teacher union and school district to create a system pleasing both groups. Ultimately the merit-pay program would be individual- and group-based. LaFee goes on to previous attempts at pay-for-performance throughout the United States.

The Criterion-Related Validity of the Performance Assessment System in Cincinnati

Author(s): Milanowski, Anthony

Source: Working Paper TC-03-07. Presented at the annual meeting of the American Educational Research Association, Chicago. Madison, WI: Univ. of Wisconsin-Madison, Wisconsin Center for Education Research, Consortium for Policy Research in Education March 2003

Publication type: Scientific Research, State or Regional Reports, Policy, Issue Paper

Full text: URL not available

Abstract: This paper presented the results of an analysis of the relationship among teachers' evaluation scores and student achievement. This was an exploration of the feasibility of linking teacher compensation on student achievement. The author analyzed reading, math, and science test scores from two consecutive years for students in grades 3 through 8. The student achievement tests were either the district test, state proficiency test, or for one year the Terra Nova test. The state proficiency test was based on student content standards and had four score ranges: below basic, basic, proficient, and advanced. The district tests covered similar content. The teacher evaluations were in four domains (e.g., planning and preparation, creating an environment for learning, teaching for learning, and professionalism). The results showed that the teacher evaluation system had a moderate degree of criterion-related validity. The results suggest that a teacher evaluation system is able to identify teachers with students who achieved higher than expected achievement.

The Varieties of Knowledge and Skill-based Pay Design: A Comparison of Seven New Pay Systems for K-12 Teachers

Author(s): Milanowski, Anthony

Source: Education Policy Analysis Archives v11 n4 January 29, 2003

Publication type: Research reviews and books, Policy

Full text: URL not available

Abstract: This article described qualitative research on seven "pioneer" knowledge and skills-based pay programs. A theory of action, which linked teacher motivation, type of incentives, and other factors to student achievement, guided the study. First, the author discussed the advantages of knowledge and skills-based pay programs. Second, he developed seven dimensions to structure the analysis and comparison of the programs, including motivation for program development, the design process, types and structures of reward, assessment of skills acquisition, size and structure of knowledge and skills incentives, alignment of other human resource programs, and cost and funding. Third, case study site visits of six school districts and one-charter school informed and supported the analysis a cross-site analysis. The results showed that although the districts had different reasons for implementing the skills-based pay systems, the author identified several lessons learned: (1) the programs retained seniority and degrees as factors for pay increases, (2) teachers' associations did not summarily dismiss changes in the pay structure, (3) the use of pre-existing standards will facilitate adoption of a new pay system, and (4) the transition to a knowledge and skills-based pay system can be low-cost.

Cincinnati's New Approach to Teacher Compensation

Author(s): Odden, Allan

Source: School Business Affairs v68 n5 p20–23 Spring 2002

Publication type: State or Regional Reports

Full text: URL not available

Abstract: This article describes the Cincinnati public school district's efforts in restructuring its teacher compensation system from a traditional single-salary schedule to a performance-based payment system, which uses both a knowledge- and skills-based salary structure and school-based performance award. The three major steps in making this change are: (1) developing acceptable teaching standards, which then were organized into four domains: planning and preparing for student learning, creating a learning environment, teaching for learning, and professionalism; (2) restructuring of teacher evaluation system; and (3) creating a new salary schedule that includes five categories of teachers: apprentice, novice, career, advanced, and accomplished. The author also summarizes findings from the pilot implementation of this new teacher compensation system in 10 schools during 1999–2000 school year.

How Cincinnati Developed a Knowledge- and Skills-Based Salary Schedule

Author(s): Odden, Allan R.; Kellor, Eileen

Source: Madison, WI: Consortium for Policy Research in Education 2000

Publication type: State or regional report, Issue paper

Full text: <http://www.wcer.wisc.edu/cpre/papers/pdf/Cincinnati%20KSBP%203-00.pdf>

Abstract: This report details the development of knowledge- and skill-based pay system in Cincinnati Public Schools. The new pay system resulted from collaborative effort between the school districts and local teacher union that occurred in step with changes to the districts teacher evaluation and professional development systems. The report examines process of the design of all three systems, as well as the new teaching standards that resulted, and the linkages of the new evaluation system to teacher pay.

Defining Merit: How Should We Pay Teachers?

Author(s): Odden, Allan; Ballou, Dale; Podgursky, Michael

Source: Education Next v1 n1 p16–25 Spring 2001

Publication type: In the Spotlight

Full text: <http://www.educationnext.org/2001sp>

Abstract: The article provides two perspectives on merit-pay system. The first perspective suggests a design of compensation systems that provides direct incentives for teachers to improve the quality of their instruction and to raise student achievement while aligning with current education policy. A discussion on pay for knowledge and skills, pay for performance, and pay for professionals is provided. The authors give two examples of innovative changes in the teacher pay system: the Cincinnati Public Schools and the Vaughn Next Century Learning Center. The second perspective also supports a knowledge- and skills-based pay system. The use of external assessments is compared to internal peer review. Teacher compensation in private schools is discussed. Pay for knowledge and skills is a flexible alternative to the single-salary schedule; however, the essential feature of the single-salary schedule (paying teachers with equivalent credentials equally) is retained.

Techniques of Evaluation of Principals and Assistant Principals: Four Case Studies

Author(s): Redfern, G.

Source: NASSP Bulletin v70 n487 p66- 74 February 1986

Publication type: State or regional reports, Issue paper

Full text: <http://bul.sagepub.com/cgi/content/abstract/70/487/66>

Abstract: This report describes 4 evaluation programs used to evaluate principals and assistant principals. Both individual and comprehensive evaluations are designed using applicable criterion on which to judge job performance. All evaluation systems rely heavily on evaluator judgments to accurately assess performance on the designed scale.

Recruiting and Retaining Teachers with Alternative Pay

Author(s): Reichardt, R.; Van Buhler, R.

Source: Aurora, CO: Mid-Continent Research for Education and Learning. November 2002, revised February 2003

Publication type: State or regional reports, rigorous research

Full text:

http://www.mcrcel.org/PDF/TeacherPrepRetention/5021RR_RecruitingRetainingTeachers.pdf

Abstract: In this study, the effect of alternative teacher pay systems on teacher recruitment and retention is explored by using the Douglas County (CO) pay-for-performance plan as the subject. The questions this study aims to answer is what effect has the pay-for-performance system had on teacher attrition, and how does the teacher quality of teachers in the Douglas County system compare with teachers in other districts with traditional pay structures. The paper introduces alternative pay structures, including merit pay, career ladders, knowledge- and skill-based pay,

also providing a detailed account of Douglas County's plan. Relying on datasets from Colorado Department of Education (CDE), the U.S. Department of Education's Common Core of Data (CCD), the U.S. Census Bureau, and the Colorado Department of Labor and Employment, this study uses statistical models to measure the effect of the new pay structure. The results suggest that the new pay plan has helped teacher retention, but has not had the same effect on teacher recruitment.

Teacher Mobility and Effectiveness in Restructuring and Non-Restructuring Schools in an Inner-City District

Author(s): Ross, S.M.; Wang, W.; Sanders, W.L.; Wright, S.P.; Stringfield, S.

Source: University of Memphis, University of Tennessee, and Johns Hopkins University
October 1999

Publication type: Report

Full text: http://www.sas.com/govedu/edu/teacher_mobility.pdf

Abstract: This study looks at how teacher behaviors, specifically teacher effectiveness and mobility are impacted by educational reform efforts. This study is placed in Memphis, TN to examine the effects of reform in an inner-city district. The major questions this study aims to address are: 1. Does teacher effectiveness differ for restructuring schools versus non-restructuring schools. 2. Does the level of teacher mobility differ overall for restructuring schools versus non-restructuring schools? 3. Are mobility and teacher effectiveness outcomes consistent for two cohorts of restructuring schools? 4. Are mobility and teacher effectiveness outcomes consistent for individual restructuring designs? Teacher effectiveness is measured by looking at Tennessee Value-Added Assessment System (TVAAS) scores over a four-year period. TVAAS scores reflect student growth free of biases. The implications of the results are discussed.

The Relationship between Teacher Evaluation Scores and Student Achievement: Evidence from Coventry, RI

Author(s): White, B.

Source: Madison, WI: University of Wisconsin-Madison, Consortium for Policy Research in Education April 2004

Publication type: State or regional reports, rigorous research

Full text: <http://www.wcer.wisc.edu/cpre/papers/CoventryAERA04.pdf>

Abstract: This report presents findings on the knowledge and skills based pay system for teachers in Coventry, RI. The researchers measure the relationship between teacher evaluation scores and student achievement. Using a similar methodology to a study of Cincinnati, the analysis uses value-added approach to looking at the data. The results of the study indicate a weak relationship between the teacher evaluation scores and student achievement in this school district.

Charter Schools

The Relationship Between Measures of Teacher Quality and Student Achievement: The Case of Vaughn Elementary

Author(s): Gallagher, H. Alix

Source: Consortium for Policy Research in Education CPRE-UW Working Papers Series TC-02-5 Spring 2002

Publication type: State or Regional Reports

Full text: URL not available

Abstract: Using Teacher Evaluation Scores (TES) and Stanford Achievement Test, Ninth Edition scores; the author tested the extent to which TES are associated with student achievement. Using a sample of students and teachers from one PK–5 urban elementary school in California, results show a moderately significant relationship between teacher-evaluation scores and classroom achievement in reading. However, the relationships between TES and achievement in mathematics and language arts were not significant. Study limitations and suggestions for future research are presented.

Catching up With the Vaughn Express: Six Years of Standards-Based Teacher Evaluation and Performance Pay

Author(s): Kellor, Eileen

Source: Educational Policy Analysis Archives v13 n7 2005

Publication type: State or Regional Reports

Full text: <http://epaa.asu.edu/epaa/v13n7/v13n7.pdf>

Abstract: The Vaughn Next Century Learning Center is a public conversion charter school in the Los Angeles Unified School District. Vaughn Center developed a new knowledge- and skills-based pay program in 1997–98 school year. This also came with a new evaluation system. This paper provides an overview of the development and evolution of the performance-pay program and the new teacher evaluation system implemented at the Vaughn Center. Vaughn teachers' reactions to these innovations are discussed. Finally, the author offers key recommendations to help those who plan to implement knowledge- and skills-based pay or standards-based teacher evaluation.

How Vaughn Next Century Learning Center Developed a Knowledge- and Skill-Pay Program

Author(s): Kellor, Eileen; Milanowski, Anthony T.; Odden, Allan R.

Source: Madison, WI: Consortium for Policy Research in Education 2000

Publication type: State or Regional Reports

Full text: <http://wcer.wisc.edu/cpre/papers/pdf/Vaughn%20KSB%203-00.pdf>

Abstract: This article details the pay for performance programs implemented in the Vaughn Next Century Learning Center. The system was to be competency-based, promoting increasing student achievement as well as teacher retention. This smaller-scale pilot ultimately led to redesigning the compensation for all new teachers, and aligned itself with the goals of Vaughn.

The Varieties of Knowledge and Skill-based Pay Design: A Comparison of Seven New Pay Systems for K-12 Teachers

Author(s): Milanowski, Anthony

Source: Education Policy Analysis Archives v11 n4 January 29, 2003

Publication type: Research reviews and books, Policy

Full text: URL not available

Abstract: This article described qualitative research on seven "pioneer" knowledge and skills-based pay programs. A theory of action, which linked teacher motivation, type of incentives, and other factors to student achievement, guided the study. First, the author discussed the advantages of knowledge and skills-based pay programs. Second, he developed seven dimensions to structure the analysis and comparison of the programs, including motivation for program development, the design process, types and structures of reward, assessment of skills acquisition, size and structure of knowledge and skills incentives, alignment of other human resource programs, and cost and funding. Third, case study site visits of six school districts and one-charter school informed and supported the analysis a cross-site analysis. The results showed that although the districts had different reasons for implementing the skills-based pay systems, the author identified several lessons learned: (1) the programs retained seniority and degrees as factors for pay increases, (2) teachers' associations did not summarily dismiss changes in the pay structure, (3) the use of pre-existing standards will facilitate adoption of a new pay system, and (4) the transition to a knowledge and skills-based pay system can be low-cost.

Defining Merit: How Should We Pay Teachers?

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